

# THE JOURNAL

OF THE

# POLYNESIAN SOCIETY

CONTAINING

THE TRANSACTIONS AND PROCEEDINGS  
OF THE SOCIETY

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VOL. XXXII.

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1923.



**New Plymouth, N.Z. :**

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1923.

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OF THE

POLYNESIAN SOCIETY

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VOL. XXXII.—1923.

ANNUAL MEETING OF THE SOCIETY  
FOR THE YEAR ENDING 31ST DECEMBER, 1922.

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THE Annual Meeting of the Polynesian Society took place in the Hempton room, Public Library, on Tuesday afternoon, January 30th, 1923. About a dozen members of the Society, including several ladies, were present. In the absence of Mr. Elsdon Best (President), from whom an apology was received, Mr. W. H. Skinner occupied the chair.

The minutes of last annual meeting were read and confirmed, after which the Annual Report and Accounts were read and passed, for which see below.

In accordance with the rules of the society, the President—Mr. Elsdon Best, F.N.Z.I.—retired from office, but was unanimously re-elected to the position.

Messrs. Waterston, Skinner and Rockel retired by ballot from the council, but on the motion of Mr. Morrison, seconded by Mr. Standish, they were re-elected for the ensuing year.

A brief reference as to what steps had been taken to have the society constituted as a "Royal" Society, and proposals for future action in this direction, was made by the Chairman and Mr. Rockel.

Reference to the scarcity of old numbers of the society's journal was made by Mr. Rockel. He had made inquiries regarding the cost of reprinting some of the volumes, but he had found this was prohibitive even by a process in which printing was eliminated, details of which he supplied. It was a lamentable thing that there was such a shortage, as they often had requests for copies from institutions not only within the Empire but in foreign countries. He appealed to members to endeavour to obtain any spare copies which they might come across.

At a subsequent meeting of the council Messrs. Waterston and P. J. H. White were re-appointed joint secretaries and treasurers.

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ANNUAL REPORT OF THE COUNCIL  
FOR THE YEAR ENDING 31ST DECEMBER, 1922.

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THE Council of the Society has pleasure in submitting the thirtieth report.

The past year has been one of anxiety to the Council. The death of our President and Founder and also Editor of the Polynesian Journal since its inception, has been a severe blow to the work and aims of the society. The passing of Mr. S. Percy Smith brought about a crisis causing grave concern to the Council, as it was difficult to forecast the future, with the active director and controller of the society, since its foundation, taken from us.

In the opinion of the Council, it would be an act of disloyalty to the memory of our late leader to allow his great work to cease without an effort to continue such, if only for a while, and accordingly it was decided to carry on, subject to assistance being forthcoming towards the supply of material for the society's publications. Acting upon this decision many of the contributors of material to

the Journal were communicated with resulting in their unanimous offers of help, and the strong advocacy of the continuation of the society's work through the medium of the Polynesian Journal, also of the retaining of the head-quarters at New Plymouth, where the organisation and necessary machinery for continuation of the work existed.

Following upon these satisfactory replies, Mr. Elsdon Best, F.N.Z.I., one of the leading authorities on Polynesian lore, and so long associated with the late Mr. Percy Smith in the conduct of the society, and also a voluminous contributor to the pages of the Polynesian Journal, was elected President of the Society. Mr. W. H. Skinner, at the request of the Council, consented to undertake the duties of Editor of the Journal, and with him in this work was associated Mr. W. W. Smith, an original member and for many years one of the Council and Hon. Secretary to the society. We regret that Mr. Smith was unable to undertake these duties owing to his resignation of membership from the society. Messrs. P. J. H. White and Chas. Waterston were appointed joint Honorary Secretaries and Treasurers. With these amendments to its personnel, the Council is now carrying out the work devolving upon it in the management of the society, and we trust that such efforts may be in a great measure successful. The policy of the Council will be to continue, as far as that is possible, along the lines laid down by our late President and Founder, viz., to promote the study of the anthropology, ethnology, philology, history and antiquities of the Polynesian races.

The issue of a special memorial number in July, dealing with the life and work of our late President, we are gratified to know has been received with general satisfaction by our members.

The regular issue of the Journal has been maintained throughout the year. The four quarterly numbers for 1922 are now in the hands of members, marking the completion of the thirty-first volume of the Polynesian Journal.

We regret to have again to chronicle the removal by death of certain of our members. Apart from Mr. Percy Smith, there has also passed another of our original members in the person of Mr. Frank S. Smith, a younger brother of the late President. There also died in the last days of the year Mr. Wm. E. Atkinson. These together with losses by resignation has reduced to fifteen the number of original members, or founders, now remaining in the society.

Amongst the honorary members we have to record the death, at a very advanced age, of the Rev. R. H. Codrington, D.D., Fellow of Wadham College, Oxford, and for many years a member of the Melanesian Mission. He was the author of a number of works and articles dealing with the language, customs, folk-lore, etc., of the Melanesian people. At the time of his death he was the senior on our list of honorary members.

On December 31st, 1922, our membership was as follows:—

Patrons .. ..	3
Honorary Members ..	10
Corresponding Members ..	15
Ordinary Members ..	195
Total ..	<u>223</u>

This shows a slight decrease of members compared with the figures for last year. Our exchanges now number fifty-one.

The finances of the society are quite satisfactory, and the careful management of the past is now showing good results. It will be observed that we ended the

year with a credit balance of £76 12s. 3d. in the general account, and £216 2s. in the capital account. Owing to the decision arrived at by the Council for the more liberal use of illustrations with the articles published in the Journal, we must expect an increase in the publisher's costs in the future. This, however, will be money well spent, as it will enable the acceptance of a certain class of articles, which have been declined in the past on the score of cost in publishing, but which are technically of the greatest value to students for comparative purposes. Also we look forward by this means to the popularising of the Journal, and so increasing our membership and revenue.

We are pleased to report that much valuable material has been recently received, and promised, for issue in the Polynesian Journal. This has relieved the Editor of any anxiety he may have felt with regard to the literary matter available and suitable for issue in the society's publications.

In conclusion, the Council wishes to thank most cordially those contributors who have supplied much valuable material for publishing in the Journal during the past year, and for their assurance of continued help in this respect.

The report was adopted.



## POLYNESIAN SOCIETY.

## BALANCE SHEET FOR YEAR ENDING 31st DECEMBER, 1922.

RECEIPTS.		EXPENDITURE.	
	£ s d		£ s d
Balance at Bank New South Wales	82 1 6	Thos. Avery and Sons Ltd.—Printing and Publishing "Journal"—	£ s d
Life Member's Subscription	10 0 0	No. 4 of Volume XXX.	.. 43 15 9
Members Subscriptions	183 2 0	No. 1 of Volume XXXI.	.. 57 2 9
Sales of Journals and Publications	26 8 10	No. 2 of Volume XXXI.	.. 26 4 5
		No. 3 of Volume XXXI.	.. 51 17 9
			179 0 8
	£301 12 4	Royal Polynesian Society for Gov. Gen.	.. 7 6 8
		W. H. Skinner's account	..
		Auckland Photo Engravers Ltd.	..
		Cheque book, 5/-; Bank charges, 10/-; Exchange, 12/6	..
		Cash book, 18/-; Envelopes, £2; Sundries, 8/3; Postage, £2	..
		Cleaning Library room	..
		Insurance	..
		Otago Times	..
		Transfer to Memoir Fund	..
		Capital Account	..
		Balance at Bank New South Wales	..
			188 7 2
			3 15 0
			4 10 0
			1 17 6
			5 6 8
			5 0 0
			0 16 8
			2 0 0
			5 7 6
			10 0 0
			76 13 3
			£301 12 4
CAPITAL ACCOUNT.			
	£ s d		£ s d
To Balance 1st January, 1922	197 11 1	By Balance at Credit 1st January, 1923	.. 216 2 10
" One Life Member's Subscription (Mr. Belneairs)	10 0 0		
" Interest	8 11 9		
	£216 2 10		£216 2 10
MEMOIR ACCOUNT.			
	£ s d		£ s d
To Balance 1st January, 1922	33 10 8	By Balance at Credit 1st January, 1923	.. 40 8 2
" Cash from T. Avery & Sons Ltd.—Sale of Society's "Memoir"	5 7 6		
" Interest	1 10 0		
	£40 8 2		£40 8 2



VOL. XXXII.—1923.

## MEMBERS OF THE POLYNESIAN SOCIETY

AS FROM 1ST JANUARY, 1923.

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The sign \* before a name indicates an original member or founder.

As this list will be published annually, the Secretaries would be obliged if members will supply any omission, or notify change of address.

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### PATRONS :

- The Right Hon. Baron Islington, K.C.M.G., D.S.O., ex-Governor of New Zealand, Government Office, Downing Street, London  
The Right Hon. The Earl of Liverpool, M.V.O., G.C.M.G., late Governor-General of New Zealand, Downing Street, London  
Admiral of the Fleet His Excellency, Lord Jellicoe, G.C.B., O.M., G.C.V.O., Governor-General of New Zealand

### HONORARY MEMBERS :

- Rev. Prof. A. H. Sayce, M.A., Queen's College, Oxford, England  
Right Hon. Sir J. G. Ward, Bart., K.C.M.G., P.C., LL.D., Wellington  
\*H. G. Seth-Smith, M.A., 88, Victoria Avenue, Remuera, Auckland  
Prof. Sir W. Baldwin Spencer, M.A., C.M.G., F.R.S., The University, Melbourne  
\*Edward Tregear, I.S.O., Picton  
Dr. A. C. Haddon, M.A., D.Sc., F.R.S., 3, Cranmer Road, Cambridge, England  
Sir J. G. Frazer, D.C.L., LL.D., Litt. D., Brick Court, Middle Temple, London, E.C.  
\*Elsdon Best, F.N.Z. Inst., Dominion Museum, Wellington  
Chas. M. Woodford, C.M.G., The Grinstead, Partridge Green, Sussex, England  
S. H. Ray, M.A., F.R.A.I., 218, Balfour Road, Ilford, Essex, England

### CORRESPONDING MEMBERS :

- Rev. T. G. Hammond, Putaruru, Auckland  
\*Major J. T. Large, Masonic Institute, H. M. Arcade, Auckland  
Hare Hongi, 119, Lambton Quay, Wellington  
Major H. P. Tunui-a-rangi, Carterton  
F. W. Christian, Totara Street, Rona Bay, Wellington  
The Rev. C. E. Fox, San Cristoval; via Ugi, Solomon Islands  
H. D. Skinner, B.A., D.C.M., Hocken Library, Dunedin  
M. G. Julien, Gouverneur des Colonies, 116, Rue Lecourbe, Paris XV.  
Thos. G. Thrum, Fort Street, Honolulu, H. I.  
S. Savage, Rarotonga Island  
Herries Beattie, Oamaru  
T. W. Downes, P.O. Box 119, Whanganui  
Capt. Geo. Pitt Rivers, Government House, Melbourne  
James Hornell, F.L.S., F.R.A.I., Department of Fisheries, Madras

## ORDINARY MEMBERS :

- 1916 Avery, Thomas, New Plymouth  
 1918 Adalbert College, Western Reserve University, Cleveland Ohio, U.S. A.  
 1918 Australian Museum, Sydney  
 1922 Adams, J. C., Taiparoro, Tauranga  
  
 1894 Bamford, E., Arney Road, Auckland  
 1896 British and Foreign Bible Society, 146, Queen Victoria Street, London.  
     E.C.  
 1898 Buchanan, Sir W. C., Tupurupuru, Masterton  
 1902 Boston City Library, Boston, Mass., U.S.A.  
 1903 Brown, Prof. J. MacMillan, M.A., LL.D., Holmbank, Cashmere Hills,  
     Christchurch  
 1907 Buick, T. Lindsay, F. R. Hist. S., Press Association, Wellington  
 1909 Bullard, G. H., Chief Surveyor, Christchurch  
 1910 Burnet, J. H., Virginian Homestead, St. John's Hill, Whanganui  
 1910 Burgess, C. H., New Plymouth  
 1911 Bird, W. W., Inspector Native Schools, Napier  
 1913 Buddle, R., H.M.S. "Hawkins," Wei-Hai-Wei, China  
 1914 Brooking, W. F., Powderham Street, New Plymouth  
 1916 Bottrell, C. G., High School, New Plymouth  
 1920 Black, G. J., Gisborne  
 1920 Bates, D. C., Brooklyn, Wellington  
 1920 Balneavis, H. R. N., Secretary, Hon. Native Minister, Wellington  
 1921 Buck, Dr., P. H., D.S.O., District Health Office, Auckland  
 1921 Butler, Miss M., 47, Tinakori Road, Wellington  
 1921 Bassett, Geo., Whanganui  
 1922 Bellringer, C. E., New Plymouth  
 1923 Bett, Dr. F. A., Nile Street, Nelson  
  
 1892 \*Chapman, The Hon. F. R., Wellington  
 1892 Chambers, W. K., Apple Farm, East Tamaki, Auckland  
 1893 Carter, H. C., 475, West 143rd Street, New York  
 1894 Chapman, M., Wellington  
 1896 Cooper, The Hon. Theo., Supreme Court, Auckland  
 1903 Chatterton, Rev. F. W., The Vicarage, Rotorua  
 1903 Cole, Ven. Archdeacon R. H., D.C.L., c/o Bank of New Zealand, 1, Queen  
     Victoria Street, London, E.C.  
 1908 Coughlan, W. N., Omaio, Opotiki  
 1908 Carnegie Public Library, Dunedin  
 1908 Carnegie Public Library, New Plymouth  
 1910 Cock, R., New Plymouth  
 1918 Chambers, Bernard, Te Mata, Havelock North  
 1918 Corney, Geo., Devon Street, New Plymouth  
 1918 Crooke, Alfred, Martin  
 1919 Curtis, G. N., Stratford  
 1920 Cowan, Jas., F.R.G.S., c/o Dept. Internal Affairs, Wellington  
 1921 Campbell, Capt. J. D., c/o Resident Commissioner, Rarotonga  
 1921 Connott, J. B., New Plymouth  
 1921 Collocott, M.A., Rev. E. E. V., Nukualofa, Tonga Island  
  
 1903 Dixon, Roland B., Ph.D., Harvard University, Cambridge, Mass., U.S.A.  
 1917 Dominion Museum, Wellington

- 1918 Davidson, J. C., "Ratanui," Carrington Road, New Plymouth  
 1920 Davis, F. T., c/o Roy and Nicholson, New Plymouth  
 1923 Donnelly, A. T., Solicitor, Christchurch
- 1892 \*Emerson, J. S., 1501, Emerson Street, Honolulu, Hawaiian Islands  
 1920 Emslie, Mrs. Ann, Hillside, Waverley  
 1921 Elvey, W. E., Noseworthy Road, Blenheim
- 1896 Fletcher, Rev. H. J., Taupo  
 1902 Fraser, M., New Plymouth  
 1903 Fowlds, Hon. G., Auckland  
 1906 Field Museum of Natural History, The, Chicago, U.S.A.  
 1913 Fildes, H., Chief Post Office, Wellington  
 1920 Fitzherbert, P. B., New Plymouth  
 1921 Firth, R. W., Wymondsley Road, Otahuhu, Auckland
- 1902 Gill, W. H., Marunouchi, Tokio, Japan  
 1902 Graham, Geo., 25, Grafton Road, Auckland  
 1910 Goding, Fred W., U.S. Consul-General, Guayaquil, Ecuador  
 1919 Good, H. M., Stratford  
 1919 Grace, P. Alfred, Tokaanu, Taupo  
 1920 Goller, John, Inglewood  
 1920 Gensik, F., 64, Albany Street, Dunedin
- 1908 Hallen, Dr. A. H., The Hospital, Mercury Bay, Auckland  
 1909 Holdsworth, John, Swarthmoor, Havelock North, Hawkes Bay  
 1910 Hocken, Mrs. T. M., Hocken Library, Dunedin  
 1910 Home, Dr. George, New Plymouth  
 1918 Hodgson, N. V., c/o Norman Potts, Opotiki  
 1918 Hart, Henry H., 314, Locust Street, San Francisco  
 1919 Hughes, Robert Clinton, New Plymouth  
 1921 Hamilton, Harold, Dominion Museum, Wellington  
 1921 Huggins, H. A., Taurima, 55, Hamilton Road, Kilbirnie, Wellington  
 1921 Hudson, J. H., G.P.O., Auckland  
 1921 Harris, F., Albion Hotel, Gisborne  
 1921 Hine, Ed., Powderham Street West, New Plymouth  
 1921 Henderson, G. M., M.A., Education Dept., Wellington  
 1923 Hardy, Dr., Bishop Museum, Honolulu
- 1907 Institute, The Auckland, Museum, Auckland  
 1907 Institute, The Otago, c/o The Museum, King Street, Dunedin  
 1921 Ilott, J. H. M., 246 B, Terrace, Wellington  
 1923 Institute, The Nelson, Nelson
- 1892 \*Johnson, H. Dunbar, Judge N.L.C., 151, Newton Road, Auckland  
 1918 Johnson, E. G., Hamilton  
 1923 Jones, Walter W., Tauranga
- 1910 King, Newton, Brooklands, New Plymouth  
 1920 Kirtley, John, c/o T. H. Martyn & Co., 117, Pitt Street, Sydney  
 1921 Kenderdine, J., Sale Street, Auckland  
 1921 Kohere, Rev. R. T., Araroa, via Gisborne  
 1923 Knapp, F. V., Alfred Street, Nelson

- 1894 Lambert, H. A., Belmont, Tayford, Whanganui  
 1911 Lysnar, W. D., Gisborne  
 1913 List, T. C., New Plymouth  
 1916 Leatham, H.B., M.R.C.S., L.R.C.P., Lond., New Plymouth  
 1917 List, C. S., Rata Street, Inglewood  
 1918 Laughton, Rev., J. G., Ruatahuna, via Rotorua  
 1920 Leith, F. E., Rangiputa, via Kaimaumau, Auckland  
 1921 Lee, G. A., Pendarves Street, New Plymouth  
  
 1892 \*Marshall, W. S., Maungaraupi, Rata  
 1892 \*Major, C. E., 22, Empire Buildings, Swanson Street, Auckland  
 1897 Marshall, J. W., Tututotara, Marton  
 1897 Marshall, H. H., Motu-kowhai, Marton  
 1907 Minister for Internal Affairs, The Hou., Wellington  
 1912 Marsden, J. W., Isel, Stoke, Nelson  
 1916 Mitchell Library, The, Sydney  
 1918 McDonnell, A. F., 355, Queen Street, Auckland  
 1918 Morris, G. N., Resident Commissioner, Niué Island, South Pacific  
 1918 Missionary Research Library, 25, Maddison Avenue, New York  
 1919 McKay, Wm., F.R.C.S., Eng., 45, Guinèss Street, Greymouth  
 1919 McKay, James, P.O. Box 55, Greymouth  
 1920 McEachen, Miss, M.A., 102, Nile Street East, Nelson  
 1920 McVeagh, Jas., 85, Queen Street, Auckland  
 1921 Monro, Rev., Piri, Ohinemutu, Rotorua  
 1922 McDonald, Jas., c/o Dominion Museum, Wellington  
 1922 McGruther, J., Waerengahika College, Gisborne  
 1922 McIntyre, Hugh, M.A., LL.B., Feilding  
 1922 Morrison, David, New Plymouth  
 1922 Morrison, D. K., 319, Devon Street West, New Plymouth  
 1922 Murdoch, Robert, P.O. Box 221, Whanganui  
  
 1895 Ngata, A. T., M.A., M.P., Parliamentary Buildings, Wellington  
 1900 Newman, Mrs. W. L., New Plymouth  
 1902 New York Public Library, Astor Buildings, 42nd Street, New York  
 1906 Newman, Dr. A. K., P.O. Box 1476, Wellington  
 1919 Nairn, Mrs. Edith, Oteka, Havelock North  
 1919 Nairn, Miss Olive, Oteka, Havelock North  
  
 1920 O'Dea, P., M.A., LL.B., Hawera  
 1923 Ormsby, J., Otorohanga  
  
 1894 Partington, J. Edge, F.R.G.S., Wyngates, Burke's Road, Beaconsfield, England  
 1907 Public Library, Auckland  
 1907 Public Library, Wellington  
 1907 Public Library, Bent Street, Sydney, N.S.W.  
 1907 Philosophical Institute, The, Christchurch  
 1913 Public Library of Victoria, c/o Robertson & Co., 107, Elizabeth Street, Melbourne  
 1913 Potts, Norman, Opotiki  
 1914 Parliamentary Library, The, (Commonwealth) Melbourne  
 1917 Platts, F. W., C.M.G., Te Kuiti  
 1919 Public Library, Invercargill  
 1920 Pomare, Hon. M., Minister in Charge, Cook Islands, Wellington



- 1921 Painter, Robert, Inglewood  
 1921 Phipps, W. J., 132, Pinnar Road, Oxley, Watford, England  
 1922 Penn, W. J. Herald Office, New Plymouth
- 1892 \*Roy, R. B., Taita, Wellington  
 1903 Roy, J. B., New Plymouth
- 1918 Rylands, John, Library, Deansgate, Manchester University, England.  
 1918 Rockel, R. H., M.A., Gover Street, New Plymouth  
 1920 Roy, Ian W. B., P.O. Box 1200, Wellington  
 1920 Rowe, W., Devon Street East, New Plymouth  
 1920 Rowden, F. J., Railway Department, Ohakune
- 1892 \*Skinner, W. H., York Terrace, New Plymouth  
 1892 \*Smith, M. C., Survey Department, Wellington  
 1892 \*Stout, Hon. Sir R., K.C.M.G., Chief Justice, Wellington  
 1892 Smith, Miss E. Percy, New Plymouth  
 1896 Smith, Hon. W. O., Honolulu, Hawaiian Islands  
 1904 Smith, H. Guthrie, Tutira, via Napier  
 1907 Secretary, The Postal Department, Wellington  
 1916 Shalfoon, G., Opotiki  
 1920 Shaw, Stanley W., New Plymouth  
 1921 Simcox, Dr. J. E. L., Plimmerton, Wellington  
 1921 Stronge, Mrs., Shortland Street, Avenue Road, New Plymouth  
 1921 Stimson, J. Frank, Papeete, Tahiti  
 1922 Standish, A. R., Liardet Street, New Plymouth  
 1922 Sinclair, Thomas B. J., Belt Road, Dartmoor, New Plymouth  
 1923 Stevens and Brown, B. F., 4, Trafalgar Square, London
- 1913 Tribe, F. C., Eliot Street, New Plymouth  
 1915 Thomson, Dr. Allan, M.A., D.Sc., F.G.S., A.O.S.M., F.N.Z. Inst.,  
 Museum, Wellington  
 1918 Trimble, Harold, Inglewood  
 1919 Turnbull Library, The, Bowen Street, Wellington  
 1919 Thompson, Dr. W. M., M.A., M.B., B.C.L., Hawera  
 1921 Tamahori, Rev. P., Tuparoa, via Gisborne  
 1921 Therkleson, Miss, Vogeltown, New Plymouth  
 1922 Taranaki, G., Mataora Bay, Waihi
- 1921 Uteurikawa, Dr. Neno, University of Tokio, Tokio, Japan
- 1919 Vaile, Hubert E., Queen Street, Auckland  
 1921 Van Doesburg, S. C., Breestraat 14, Leiden, Holland  
 1921 Vogan, Arthur, F.R.G.S., c/o J. A. Richardson, Eldon Chamber, Pitt  
 Street, Sydney
- 1892 \*Williams, Archdeacon H. W., Gisborne  
 1894 Wilson, A., Hangatiki, Auckland  
 1896 Williams, F. W., Te Rauwhiti, Hukarere Road, Napier  
 1896 Wilcox, Hon. G. A., Kauai, Hawaiian Islands  
 1898 Whitney, James L., Public Library, Dartmouth, Boston, U.S.A.  
 1903 Walker, Ernest A., M.D., New Plymouth  
 1910 Wilson, Sir J. G., Bulls

- 1912 Westervelt, Rev. W. D., Honolulu, Hawaiian Islands  
 1913 Wheeler, W. J., Surveyor, Gisborne  
 1914 Waller, Captain W., Moturoa, New Plymouth  
 1915 Williams, H. B., Turihaua, Gisborne  
 1916 Welsh, R. D., Hawera  
 1916 White, Percy J. H., New Plymouth  
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# TETAHI WAHI O TE WHAKAAKONGA I ROTO I TE WHARE-WĀNANGA NA NEPIA POHUHU.

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KO H. T. WHATAHORO TE KAI-TUHITUHI.

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**H**Ē kupu atu tenei naku ki a koe, kia marama ai koe ki nga whatu—te whanau-puhi, i korerotia ake ra e taua—a Tama-nui-te-ra, te marama, me o raua taina, ko Koria, ko Te Ahu-rangi, Te Rangi-taupiri; ko ratou nga Pou-tiri-ao; kei a ratou te tauhere ana te marama.

Ka mea a Tāne-matua, “Tukua ki te marama te tauhere o te timu, o te pari mai o te tai.” Ka mea a Tupai, “Ko ‘Tuahiwi-nui-o-Hine-moana’ hei tatai i nga tuatea, kia ngawari ai te whakahoro mai ki tenei taha, ki tera taha hoki.” Ka tono hoki a Tupai ki a Tāne kia poua nga whetu hei hoa mo te marama ki ‘Tuahiwi-nui-o-Hine-moana.’

Kia marama ano koe: He wa to nga mea katoa—to Papa, to Rangi. Kaore he mea e taea te ki no Papa anake, no Rangi anake. Kua oti nga mea katoa i a raua me to raua whanau te whakatau ki tana wahi, ki tana wahi, o ia ahua, o ia ahua. Koia i na rawa ai katoa nga mea katoa—nga whetu, te ra, te marama—he wahi enei no Papa, no Rangi. Pera hoki kei nga rangi 11 (? 12). He ao hoki nga whetu, te ra, te marama, he wahi no Papa-tua-nuku. No te wehenga i a Papa, i a Rangi e tu iho nei, ka hoatu e Tāne me nga Pou-tiri-ao he ahua ke mo ratou. He Pou-tiri-ao to ia whetu, to ia marama, to ia ra. Pera hoki ra to nga rangi 11 (? 12).

Na Tāne me nga Pou-tiri-ao i hoatu he ahua mo nga mea katoa, i tona ahua, i tona ahua ano. I hoatu e Tāne me nga Pou-tiri-ao te wai, te ahi, hei taki, hei whakatipu, hei rauhi, i nga mea katoa, ahakoa otaota, rakau, ngarara, ika, me te tangata—koia tera te kaitiaki i a ratou katoa.

Ki te kore te wai, ko te ahi anake, he mea mate nga mea katoa. Ko Papa-tua-nuku ia te whare hei whakaahuru, hei manaaki, e toitu ana te ora o nga mea katoa. Otira, ki te kore nga Pou-tiri-ao hei tiaki i te turanga o ia mea, o ia mea, te haere a ia mea, a ia mea, te mahi a ia mea, a i mea, na konei i toitu ai nga mea katoa. Mei kore nga Pou-tiri-ao kua tau-patupatu nga mea katoa ki a ratou ano.

Ka whakaaro a Io koi whakamarama nga Pou-tiri-ao ki tana mahi, ki tana mahi, ka tupu ake he mea he; i te mea ko nga Pou-tiri-ao te ariki o nga mea katoa. I a Papa-tua-nuku, i a Rangi-nui, ka tukua mai e Io-mata-ngaro nga Whatu-kura, hei tiaki hei awhina i nga Pou-tiri-ao. I konei ka hiki te mana-ariki ki nga Whatu-kura; i te mea kua mau te mana-ariki ki nga Whatu-kura, kua takahautia nga Pou-tiri-ao katoa i a Papa-tua-nuku, i a Hine-moana, i a Rangi-nui, i nga kapua. I te kauwhanga o Rangi, o Papa, ka waiho nga mea katoa i nga Whatu-kura, ka waiho nga mea katoa e nga Whatu-kura i a Io-mata-ngaro anake te mana-arikitanga me te atuataka. No reira kua waiho nga Whatu-kura hei hoa mo nga Pou-tiri-ao, hei tomotomo i nga rangi ngahuru-ma-rua, nga Whatu-kura, me nga kauwhanga 11, me Papa-tua-nuku tae atu ki Te Muri-wai-hou, ki Raro-henga.

Ka tuturu nga mea katoa—i te whenua, i nga wai, i nga rakau, i nga otaota, i nga kowhatu, i nga kohu, i nga kapua, i nga whetu, i nga marama, i nga ra o nga ao katoa i roto i nga rangi nga-huru-ma-rua. Ko nga Whatu-kura me nga Pou-tiri-ao ki tana mahi, ki tana mahi, i tona tunga, i tona tunga. E whakamau katoa ana nga whatu o nga Whatu-kura ki a Io-taketake. Koia i riro ai te mana-atua o nga Pou-tiri-ao i nga Whatu-kura, koia i riro ai te mana-atuataka o nga Whatu-kura i a Io-te-waiora.

Ka kite koe, kua whaiti te atuataka ki a Io anake; koia i riro ai Te Toi-o-nga-rangi hei tapu. I te mea kei a Io-mata-ngaro anake te mana o nga atua katoa, koia i kiia ai enei ingoa ki a ia:—Io-nui, Io-wananga o nga rangi, Io-te-waiora o nga mea katoa, Io-taketake o nga mea katoa, Io-matua o nga mea katoa. Na enei ingoa katoa, e tauhere ana i nga mea katoa i nga rangi-tuhaha, tae mai ki Te Muri-wai-hou, ki Rarohenga, i a Io anake. I konei ka kiia tetahi o ona ingoa, ko Io-matua-te-kore, ko ia anake ia. No reira kaore he mea e tu rawaho ana i a ia. Kei roto i a ia nga mea katoa.

Kati tenei whakamarama aku ki a koe. Kua whakaatu au ki a koe, na te wai, na te ahi nga mea katoa i tipu ai, i ora ai. Otira, ki te kore te whenua hei rauhi, hei whare mo nga mea katoa, kaore e taea e te wai e te ahi te pupuri te ora o nga mea katoa. Ka marama i konei ko te whenua te matua o te wai, o te ahi, me nga mea katoa. Otira ki te kore a Rangi i moe i a Papa-tua-nuku, e kore e whai ahua nga mea katoa. No reira, na te tane, na te wahine i whai ahua ai nga mea katoa. Otira, mehemea kaore nga Whatu-kura, kua kore he mana-atua mo nga mea katoa. Ki te kore a Io hei paihere i nga atuataka katoa, kua tau-patupatu he (? te) haere a nga mea katoa. Na Io ka tika; na Io i wehewehe te mana-atua ki nga mea katoa, i te ahua ano o nga mea katoa. Kaore hoki e tika kia kiia, he mea nui anake nga mea katoa; no reira he mea iti ano i roto i

nga mea katoa. Ka rite te titiro a Io i konei ki nga mea katoa tae noa ki te mea iti rawa o nga mea katoa.

I konei ka marama tatou katoa, he wairua to nga mea katoa, he ora to nga mea katoa, he mate to nga mea katoa. Na, kua kiia e au, ko te oneone te whare o nga mea katoa, ko ia te matua o nga mea katoa. I runga i tenei, e tika ana he uha ta nga mea katoa, hei whare mo nga mea katoa, i tona ahua, i tona ahua, i tona turanga, i tona turanga. Ki te kore te uha, kua kore he uri o nga mea katoa. No konei, na te uha nga mea katoa i tipu ai, i ora ai, kia whai mana ai te atua ki roto i nga mea katoa.

Koia nei hoki te take o nga Marei-kura i Te Toi-o-nga-rangi, he whare whakatipu i nga Whatu-kura. Pera hoki nga Pou-tiri-ao. No reira kia marama, ahakoa he kowhatu, he tipu tona, he ora tona, he ahi tona, he wairua tona i tona ahua ano. Ki te kore enei i roto i te kowhatu e kore e hoatu he ahua-a-kowhatu ki a ia—koi mounou. He aha te painga o nga tinitini whaioio o nga Pou-tiri-ao, o nga Whatu-kura, o nga Marei-kura, o nga Apa-wahine, ki te whakaahua noa i tetahi mea, kaore nei ona painga. No reira kia marama koe: He painga to nga mea katoa—i te iti tae rawa ki te mutunga o nga mea rahi. Mehemea kaore; ka mounou te tu o nga Pou-tiri-ao, me nga Whatu-kura, me nga Marei-kura, me nga Apa-wahine o nga rangi-tuhaha, ki te whakahaere, ki te tiaki i nga mea katoa. He wairua nei hoki enei no Io-mata-ngaro. Kati taku whakamarama mo tenei.

Kia tuturu i konei, ka waiho te mana-ariki, te mana-tapu te mana-ora, te mana-atuatanga, ki roto ki te ringa o Io. Ka whaiti nga mea katoa i konei ki tona aroaro i roto i nga rangi ngahuru-ma-rua tae noa mai ki a Papa-tua-nuku, tae noa ki Te Muri-wai-hou, ki Rarohenga. Kati tenei.

Ko te mate, he mea pokanoa; i te mea kaore ano nga Pou-tiri-ao i tae noa ki tona turanga, ki tona turanga, kia tau-patupatu nga mea katoa ki a ratou ano. Koia te ngarara i whakatakoto pakanga ai ma ratou; te otaota o te whenua, he pakanga ano tana; te moana, he pakanga ano tana; nga ika, he pakanga ano tana; he wai, he ahi, nga kapua, he tangata, te marama, te ra, nga atua, te mate, he pakanga katoa a ena. Koia i whakaaro ai a Io-matua i te mea ko ia te matua o nga mea katoa, ka wehewehe nga Pou-tiri-ao me nga Whatu-kura, kia tauwehe i nga mea katoa, kia hangai te haere, me te mahi o nga mea katoa ki tana mahi, ki tana mahi. Ahakoa ko te kirikiri ko te mea iti ra, he mahi ano tana. Koia i tika ai te haere a nga mea katoa. Engari, i te mea kaore ano nga Pou-tiri-ao me nga Whatu-kura, kua kai ano ratou i a ratou ano; kua patu hoki ratou i a ratou—tē ora nga mea katoa o te ao.

Koia te take i pakaru ai nga Pou-tiri-ao, ko etahi ki te pakanga, ko etahi ki te maunga-rongo. Ka riro i a Whiro me ana hoa te mana o te pakanga me te mate. Ko te mana o te maunga-rongo me te ora ka riro i a Tāne. Ko nga mea katoa e whakaae ana ki te pakanga ko Whiro-te-tipua te kai-arahi; nga mea katoa e whakaae ana ki te maunga-rongo ko Tāne te kai-arahi. Ko nga Whatu-kura te kai-paihere o te maunga-rongo me te ora. Kaori i mau enei pakanga no reira mai tae mai ki naianei. Engari he wa to nga mea katoa i te aroaro o nga Pou-tiri-ao, o nga Whatu-kura.

Ka marama koe i konei, kotahi te ariki, ko tahi te atua, kotahi te wairua; kei a ia e mau ana te maunga-rongo, te ora. He mea tenei i heke mai i a Io ki nga rangi-tuhaha tae noa mai ki a Papa-tua-nuku. Ko te mate kua pangia ki tenei ao, ki waho i nga rangi-tuhaha. He wa to te mate, he wa to te ora, pera nga mea katoa.

He whakaatu tenei naku ki a koe koi awangawanga koe ki tenei kaupapa korero—he mea tuturu tenei nō te Whare-wānanga. Koia tenei te kaupapa o te wānanga. Mau e korero ki a Te Matorohanga raua ko Te Oka-whare, ma raua e whakahangai, e whakauru ranei, e takiri ranei. I a Te Matorohanga hoki te ahi-komanu o te Whare-wānanga, he whakaahuru taku.

E Ta! ka pau nga kai o roto o te rua, ka tuwhera noa te tatau, he hau te kai o roto. Pera hoki te whare whakanoho; ki te tuwhera noa te tatau, he kainga mahue, he hau te kai o roto. Ina nga korero a ou tupuna a ou matua ka pau i a matou te wetewete atu ki a koe; ko matou he papa mo tenei mahi, na matou i haere i runga i te tutira ka takoto. Ka mutu nga korero a Nepia Pohuhu, o Wai-rarapa.



# THE MAORI PHILOSOPHY OF LIFE AND MATTER, ACCORDING TO THE TEACHING OF NEPIA POHUHU.

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TRANSLATED BY S. PERCY SMITH.

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No. I.

THE Whare-wānanga was in ancient times the house of teaching, of learning—the Maori College in fact—in which young Maoris selected for their mental activity were taught the ancestral lore, and all manners of customs, etc., which went to form the education of the chiefs and the priesthood.

Nepia Pohuhu, who dictated to a couple of young and intelligent Maoris the following matter, was educated in all the learning of the Whare-wānanga, and passed all the examinations and ordeals considered necessary in that institution. A reference should be made to our “Memoirs,” Vol. III., for particulars of the mode of teaching in the Whare-wānanga, and in that publication is to be found much matter dictated by this same Nepia Pohuhu, besides other *tohungas* or priests. The following matter is adduced as a confirmation of much that is to be found in the volume quoted above; and it also shows the attempts made by the Maoris of old to explain life, the nature of things generally, and some of their beliefs.

To those who do not possess the volume quoted above, it is necessary to explain that the teaching of the Maori College proclaimed one supreme god, Io, with many attributes; a sky-father and earth-mother, who were the parents of the seventy minor gods; a number of other gods, or beings, called Whatu-kura, and their female companions the Marei-kuras, both being guardian gods of the twelve heavens—more like angels, if the term is allowable. There were also many Apa, or Messenger-gods, who communicated with the seventy gods—offspring of the sky-father and earth-mother. The Pou-tiri-ao were also guardian spirits of every thing in nature, on the earth and the heavens, subservient to the Whatu-kuras.

There are many things in what follows that are difficult to put concisely into English by adhering strictly to the original Maori language, and, therefore, many notes are added in the text within brackets [ ] to make the matter clearer, and in this the translator has had the assistance of one of those who took the matter down originally—now an old man of seventy-eight years of age. But even then one must remember what has been frequently told by learned men from various parts of the island, that the words used in these old stories have not always the meaning that is now placed upon them.

This is probably the case. If it is remembered that those teachings have been going on for untold ages, expressed in the same words—for it was wrong to deviate from them—no wonder meanings may have changed. At one time Maoris, Rarotongans, Tahitians, and others, spoke exactly alike, but 500 years of separation has so changed the dialects that they are mutually understood only with difficulty. All languages change, who among us can read Saxon, the basis of so much of our English?

#### TRANSLATION.

“This is my word to you in order that you may be quite clear as to the *whatu*—the Whanan-puhi which we have already discussed—that is, Tama-nui-te-ra [the sun], Te Marama [the moon], and their younger relations, Korua, Te Ahi-rangi, Te Rangi-taupiri, who were the Pou-tiri-ao [guardian spirits]; it was they who held [governed] the moon [in its phases].

[We shall hear a good deal about the Pou-tiri-ao later on. Every thing in heaven and earth had its Pou-tiri-ao, which is best translated by ‘a guardian spirit.’ The Whanan-puhi includes the sun, the moon and the stars.]

Said the god Tāne-matua [Tāne-the-parent, so called because he formed the first woman; he had many other names], ‘Leave it to the moon to govern the ebb and flowing tides of the sea.’ Tupai [one of the gods] replied, ‘Let ‘Tuahiwi-nui-o-Hine-moana’ guide the waves of ocean, so that it may be easy for them to break on this side and on that.’ Tupai also begged Tāne to place some of the stars as companions for the moon at Tuahiwi-nui-o-Hine-moana. [This latter name translated as ‘The great ridge of Hine-moana,’ the last name being emblematical for the ocean, is supposed to be a certain place in the ocean between New Zealand and Tahiti from whence came the ancestors of the Maoris, where fierce storms are met with. But it is also supposed to be a name signifying the Milky Way in the skies].

You must also be quite clear on this point: Everything has a space of its own—of the earth (Papa) and of heaven (Rangi). There is no thing of which it can be said it belongs to the earth alone, or to the heavens above. Everything has been assigned a place by those two and their family, of whatever kind it may be. Hence all things belong to them, the stars, the sun, the moon—all of these are places belonging to them. It is the same with the eleven heavens.\* The stars, the sun, the moon, are all worlds, they are places of Papa-tua-nuku [the earth-mother]. When Papa and Rangi were separated, Tāne and the Pou-tiri-ao gave them a separate appearance—each

\* There are twelve heavens, but the highest is not included. In this last dwelt Io the supreme god.

star, each sun, each moon has its own Pou-tiri-ao [guardian spirit]: each of the eleven\* heavens has its guardian spirit.

It was the god Tāne and the Pou-tiri-ao who gave to each thing its separate appearance [nature, properties]. They also gave the water, and the fire to guide them, cause growth, and refresh all things, whatever their nature, whether vegetation, trees, lizards, fish and also man; those were their guardians.

If there is no water, only fire, all things would die. Papa-tua-nuku [the earth] is the house which gives support and entertains, thus allowing life to all things. But it is the Pou-tiri-ao that guards each thing in its position, in its conduct, its work, and hence all things remain [in each one's position]. If it were not for them each thing would constantly strive against the other.

The supreme god Io decreed that each Pou-tiri-ao should not [be at liberty to] determine its own functions, or things would go wrong, for they were the lords [directors] of every thing. In the times of Papa-tua-nuku [the earth-mother] and Rangi-nui [the sky-father], Io-mata-ngaro [Io-the-hidden-face—the supreme god] appointed the Whatu-kura [higher class of guardians] as rulers and helpers for the Pou-tiri-ao. Thus the *māna-ariki* [over-lordship] was placed on the Whatu-kura, and since this is so, the Pou-tiri-ao became subservient to Papa-tua-nuku, Hine-moana and Rangi-nui and the clouds. In the plane [? region, abode] of Rangi and Papa everything was given over by the Whatu-kuras to Io-mata-ngaro [supreme god], the over-lordship and the functions of a god. And hence the Whatu-kuras became the companions of the Pou-tiri-ao, and had the entry of the twelve heavens and the eleven *kauwhanga* [planes], the earth, even to the Muri-wai-hou at Raro-henga [hades].

[The functions of] all things are determined—on the lands, the waters, the trees, the weeds, the stones, the mists, the clouds, the stars, the moons, the suns, of all the worlds within the twelve heavens. The Whatu-kuras, the Pou-tiri-ao, each had its own duties in each of their own spheres [of action]. Each Whatu-kura looked to Io-taketake [the supreme god] and thus the god-functions of the Pou-tiri-ao were taken by them, and the power of the god-functions belonged to Io-te-waiora [the supreme god].

You now see that all god-like functions centred in Io alone, and thus is it that Te Toi-o-nga-rangi [uppermost heaven] is so *tapu*. In consequence of the powers of all the gods being vested in Io-mata-ngaro [supreme god] alone, he had the following names: Io-nui, Io-wānanga-o-nga-rangi, Io-te-waiora-o-nga-mea-katoa, Io-taketake-o-nga-mea-katoa, Io-matua-o-nga-mea-katoa. By these names are

\* There are twelve heavens, but the highest is not included. In this last dwelt Io the supreme god.

'bound' everything in the conjoint heavens—even to Te Muri-wai-hou at Rarohenga [Hades]; they all belonged to Io alone. And now another name becomes his, Io-matua-te-kore [Io-the-parentless], he is self-created. Hence there is nothing without him; within him are all things.

Enough of this explanation to you. I have told you already that it is by water and fire that all things grow and live. But with the earth to refresh and be a 'house' for all things; water and fire alone could not preserve all things. It is thus clear that the earth is the parent of water, fire, and all things. But had not Rangi [the sky-father] married Papa-tua-nuku [the earth-mother] nothing would have possessed *ahua* [form]. And from this [it may be gathered] that it is through the male and female that each thing has its [separate] form. But without the Whatu-kuras nothing would have possessed the *mana-atua* [god-like influence]; and without Io to bind [restrain] all god-like functions, there would be constant strife in all things. By Io all things go right, and it is he that allocates to each thing its [share of] god-like powers, and their duties. It is not right to say that everything is great, important; because there are small and unimportant things in everything; and everything great and small, is subject to the oversight of Io.

Now, it is clear to us that everything has a spirit of its own, as well as life and death. I have already said that earth is the parent [? foster-parent] of all things; and from this it is true that each thing has a female kind which acts as a 'house' [receptacle] according to its different kind and purpose. Were it not for the female there would be no descendants [propagation] of anything; it is through the female that things have life and growth, and thus allows the god to possess power within them [? as to last few words].

This [the above] is also the reason for the Marei-kura [female gods] within the Toi-o-nga-rangi [the uppermost heaven], they are a sacred 'house' in which the Whatu-kuras are bred, and it is the same with the Pou-tiri-ao. Be clear on this: Whether it be [even] a stone, it has its growth, its life, its fire, and a spirit of its particular kind. If the stone did not contain these properties, it would not have a stony nature—it would be wasted. What would be the good of the innumerable Pou-tiri-aos, Whatu-kuras, Marei-kuras, and the female Apas, forming anything without utility? Hence be ye clear! Everything has its good [its use] even from the tiniest thing to the very largest. If it were not so it would be superfluous to appoint the Pou-tiri-aos, the Whatu-kuras, the Marei-kuras and the apawahine of the conjoint heavens to supervise and guard everything. For all these are spirits of Io-matu-ngarō. Enough of my teaching on this subject.

It is now finally determined that the *māna-ariki* [over-lordship],



the *māna-tapu* [the sacred power], the *māna-ora* [power of life], the *māna-atuatanga* [the power of god-ship] are all held within the hands of Io. All things in the twelve heavens are gathered within his presence as are those of the earth, even unto Te Muri-wai-hou at Hāro-hēnga [Hades].

Death is an interloper; were it not for the Pou-tiri-aos in each of their separate functions, all things would be at strife with one another. The reptiles, the vegetation, the ocean, the fish, the water, the fire, the clouds, mankind, the moon, the sun, the gods, death, all [would] have their mutual strife. Hence Io-matua, as the parent of all things, decreed that the Pou-tiri-aos and the Whatu-kuras and all things should be separate [have separate functions] so that all should be orderly, each performing its own work. Even the tiny gravel has its functions. Thus is it that everything is orderly. But, were it not for the Pou-tiri-aos and the Whatu-kuras, each thing would prey on its kind; they would kill one another; nothing in the world would live.

Thus it is that the Pou-tiri-aos were 'broken up,' some to strife, some to peace-making. Strife and death were relegated to Whiro [the evil spirit, or god of Hades]; whilst that of peace and life was the function of the god Tāne. All things that consent to [believe in] strife, Whiro-te-tipua is their leader; those who consent to peace, Tāne is their leader. The Whatu-kuras are the 'binders' [restrainers] tending to peace and life. All this strife has existed [from the wars of the gods] down to the present time. But everything has its own place in the presence of the Pou-tiri-aos and the Whatu-kuras.

You will now be quite clear; there is one lord, one god, one spirit, in whom are vested peace and life; and this [belief] has descended from Io through the conjoint heavens even down to the earth. Death was cast out from the conjoint heavens to this world; both life and death, as all things, have their own sphere [of action].

I am explaining to you this line of teaching lest you should have any doubt; all of it is the true teaching from the Whare-wānanga; this is the 'platform' of learning. You can ask Te Matorohanga and Te Oka-whare; they can apply it [this teaching] and confirm it—or reject it. Te Matorohanga has possession of the permanent fire of the Whare-wānanga; mine is simply the warmth.

O Son! where the contents of a *rua* [store-house] are consumed and the door left open, there is nothing but air inside. It is the same with a dwelling, if the door is left open, it means an abandoned house—nothing but air inside. In like manner the teaching of your ancestors, of your parents, has been unfolded to you; we are the foundation of this teaching, and we follow the [true] line laid down."

[Nepia Pohuhu's teaching ends here—adds the Scribe.]



# THE ORIGIN OF THE MAORI.

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## THE HIDDEN HOMELAND OF THE MAORI, AND ITS PROBABLE LOCATION.

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BY ELSDON BEST.

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THE identification of the original home of the Polynesian race, to which the Maori of New Zealand belongs, is a matter that has long interested ethnologists. The unquestionably deep interest it has aroused has sprung from several sources. In the first place we know that the ancestors of the Maori have been the most daring and successful deep sea neolithic voyagers of whom we have any record. We know that they have, in past centuries, traversed the vast Pacific Ocean in their rude carvel-built craft in every direction. Knowing nought of compass or metals, they opened up the rolling sea roads, and crosshatched the Great Ocean of Kiwa with the wake of their swift gliding *prau*. Yet again we know that the Maori was in occupation of a greater portion of the surface of the earth than any other old-time race. We know that he was found in sole occupation of an area of 5,000 by 4,500 miles of the Pacific region, that he has still many colonies extant in Melanesia and Micronesia, and that faint echoes of his ancient speech are heard from far off Madagascar. To these causes of interest may be added that produced by the remarkable mentality of the Maori, and its manifestations and results. His many historical traditions, his spiritual concepts, his elaborate

asacerdotal method of conserving and teaching esoteric knowledge, his systems of sociology, cosmogony, anthropogeny and mythology, all possess elements of deep interest to thinking minds. Above all, these institutions, usages, beliefs, arts, and other activities, tend to cast much light on the development of civilisation, the evolution of human culture.

A considerable number of writers have dealt with the question of the origin of the Polynesians, which subject includes, of course, that of the Maori of New Zealand. Among such works that of Fornander ("The Polynesian Race") stands out as one of the most important. Mr. S. Percy Smith's "Hawaiki" is the best of the later publications. Fenton's little work ("Suggestions for a History of the Maori Race") is interesting and suggestive. Thompson's papers in the "The Maori Record" deal largely with Sumatra as a wayside halting place in the migration from Asia. "The Transactions of the New Zealand Institute" and "The Journal of the Polynesian Society" contain a considerable amount of matter concerning the origin of the Maori race. A number of other writers have discussed the subject in sundry books and papers. In nearly all cases these writers have looked to Asia for the homeland of the Polynesians. One writer, however, the Rev. J. D. Lang, wrote a book entitled "The Origin and Migrations of the Polynesian Nation," in which he brings the Polynesians from America, because "it is God's own way," a very singular conclusion for the reverend gentleman to come to. Again, Ellis, in his "Polynesian Researches," seems to conclude that the Polynesians could not have sailed across the Pacific from the west because the trade winds would be against them. That theory has, however, been exploded since Ellis's time: we now know that Polynesian voyagers have sailed in all directions across the eastern and central Pacific, back and forth between many isles and groups.

Some of the writers enumerated above trace the Polynesian back to India, some hale him from Arabia. A few students of Polynesian history do not venture further than Indonesia in seeking the hidden homeland of the race.

And what of the Maori, the Polynesian himself? What sayeth the descendant of the courageous sea rovers who broke out the water trails from the ever loved homeland. We know that to the Maori, more so than to us, is it truly the hidden homeland. He tells us that that land lies far away to the west, or north-west, that his forbears steered for the rising sun when seeking new homes in the vast ocean. He speaks of that homeland as Hawaiki, as Atia, as Tawhiti, as Urn, as Irihia, as Mataora, and other less known names. But it is the neolithic Maori who speaks, the scriptless barbarian of the stone age who knew not permanent records.

Of all the names for the old homeland given here that of Hawaiki, Hawaii, Havaiki, Awaiki, etc., is the most widely known throughout the Polynesian area. It is familiar to the folk of many isles and many groups. It has, moreover, been applied to many islands of Polynesia, as seen in Hawaii of the Sandwich Group, Savaii of the Samoan Isles, and Hawaiki, an old name for Tahiti Island. New Zealand was known as Hawaiki-tahutahu to some branches of the Polynesian race. There is another aspect of this name Hawaiki to be considered, and that is a peculiar significance that is attached to the name, as apart from its being a name for the homeland. Owing doubtless to the belief that spirits of the dead crossed the ocean to the far west, and went to the old fatherland of the race ere entering the spirit world, Hawaiki is often confused with the spirit world itself. It is also employed as a word to denote the unknown, very much as is the name of Te Po, an expression that is applied to the spirit world, also to the unknown and unfathomable periods prior to birth and after death. Thus we hear natives making such remarks as the following:—"I know nothing about those matters; I was in Hawaiki at that time"—thus implying that they were not born at the time. Yet again, in the esoteric version of the traditional account of the homeland, as preserved by the Takitumu folk, we find that Hawaiki is not employed as a name for that lost homeland, but is given as the name of a very *tapu* place situated therein.

The Tahitians give Hava'i'i as the name of their original homeland, their dialect having dropped the letter *k*. Some writers trace this name back to Java, a name that also appears as Hawa, Sawa, Jawa, etc. Others carry its origin still further back to the Arabian Saba, but in these reflections we enter the realm of conjecture.

The name of Tawhiti, in various forms, is another old one that has been carried by Polynesians far and wide across the ocean. We have it as Tahiti in the Society Group, as Viti and Whiti, island names of Fiji, which itself is a corrupt form of Viti. The Samoans call Fiji Tafti. At the Hawaiian Isles we find that Tahiti is known as Kahiki, the Hawaiians having dropped the *k*, but have changed *t* to *k*. The Hawaiians speak of Kahiki-ku and Kahiki-moe as two lands in the far west known to their ancestors. They are said to have been extensive lands. The Maori of New Zealand gives Tawhiti-nui, Tawhiti-roa and Tawhiti-pamamao as names of lands in the far west known to his ancestors. Tawhiti-nui is a place name found in several districts of New Zealand, and was proposed as a name for Wellington some twenty-eight generations ago, but was abandoned in favour of Te Whanga-nui-a-Tara.

We now come to two highly interesting names connected with the origin of the Maori, namely, those of Urn and Irihia. The East Coast natives of our North Island have preserved the following

tradition of the original homeland. In remote times the ancestors of the Maori dwelt in the lands of Uru and of Irihia, two distinct regions of, apparently, an extensive land. A state of war in the land of Uru led to the migration of a certain people under a chief named Puhirangirangi (given as Ngama-te-ariki in another version). These migrants proceeded eastward because one Tu-te-rangiatea had informed them that away to the east of the mainland (or interior lands) of Uru lay a goodly land called Irihia. That land of Irihia was inhabited by a dark skinned, spare built folk, whose food supplies were fish, and *ari*, and *kata*, and *porokakata*, and *tahuwaero*, and *koropiri*. A leading chief of these folk of Irihia was one Kopura, a person of great *mana*, whose followers were so numerous that a local saying was:—"Tena te ngaoko na me te onepu moana." ("Yonder they move like unto sands of the ocean.") Upwards of seven hundred and fifty chiefs were under his sway. The names applied to these people by the immigrants from Uru are terms betokening their dark skin colour. It is said they had peculiar side glancing eyes. Some of the tribes of Irihia were folk of low culture, who lived wandering lives in the forests. War seems to have raged between the immigrants and the people of Irihia, the former suffering severely, hence eventually they, or some of them, left the land of Irihia in seven vessels and sailed away to the eastward in search of a new home. These were the ancestors of the Polynesians who wandered from isle to isle until their descendants reached, explored and settled the innumerable isles of Polynesia. Probably this was not the only party of migrants that left the land of Irihia to seek new homes across the sea.

The above tradition is brief, like all oral traditions of great age, but it presents elements of much interest. Irihia is described as a hot country, inhabited by great numbers of dark skinned folk. The names of the food supplies of these people convey to us no meaning, save in one case, that of the one called *ari*. This is described as a *kai toto kore*, a "bloodless" or sapless food (the natives of India speak of sap as being the blood of trees), hence this food product was much employed as an offering to the gods. Let us here note that *vari*, *pari* and *fare* are all names for rice, also that Atia-te-varinga-nui is the Rarotongan name for the old Polynesian homeland. This name may be rendered as Atia of the plentiful *vari*, or, literally, Atia the bericed, as Mr. Percy Smith renders it.

We now come to the name of Irihia, and here encounter two interesting facts. In the first place we know that an old Sanscrit name for India was *Vrihia*, and no Maori could pronounce this name otherwise than as Irihia or Wirihia. Again *vrihi* is a Sanscrit name for rice, hence *vrihia* bears a meaning equivalent to *varinga* in the name Atia-te-varinga-nui. I am strongly inclined to believe that, at some remote period, the ancestors of the Maori knew rice as a food. If this



was so, then an Oriental origin is imperative. In the case of rice, the ambiguity shrouding the food uses and original habitat of the cocoa-nut and sweet potato does not exist. An old native of Wai-rarapa, named Te Matorohanga, a person highly versed in the ancient lore of his people, and remembering what his elders had told him concerning *ari*, when he first saw rice, gave it as his opinion that it was the "bloodless" food product of Irihia, the *ari* of Maori tradition.

There is something connected with the word *ari* that is not clear. The eleventh night of the moon is termed Ari by the Maori, who planted his principal crop, the sweet potato, during that phase of the moon. At Mangaia Island this night is called the Vari phase, the rice name is persistent. The full title of Ari is Ari-mata-nui, a far spread name having peculiar associations. *Padi*, another rice name, has been connected with Pani, who, in Maori myth, gave birth to the sweet potato *in the water*. This wildly improbable mode of producing the sweet potato is also persistent in myth. Had Pani so produced rice we might have accepted the statement.

With regard to the land of Uru, from which the party of migrants came eastward to the hot land of Irihia, we can locate but one region of that name if we assume that Irihia is the Vrihia of ancient days. In the southern part of Sumeria, near the mouth of the Euphrates river, as then situated, existed about 2800 B.C. the flourishing state of Uru, known as Ur of the Chaldees to readers of the Scriptures. The correct form of this name is Uru, as given in Conder's "Rise of Man." Of this place the patron deity was Sin, the personified form of the moon, a name that calls to mind Sina, the widely known moon goddess of Polynesia. She is known as Hina to the Maori of New Zealand, where, as in ancient Egypt, the moon goddess is the patron deity of women, presiding over childbirth and the art of weaving.

The Hawaiian Polynesians have preserved a tradition of a land or region called Ulu-nui that lay adjacent to the old home of their ancestors. In our New Zealand dialect this name would appear as Uru-nui (Great Uru). It is not my intention to proclaim that the homeland of the Maori, that is to say of the Polynesian race, has been located, I merely draw attention to these interesting traditions and other data, and await further evidence. When we come to examine the institutions, myths, beliefs, concepts and ritual of the Maori, we shall find many analogies with those of southern Asia.

The late Judge Fenton, in his "Suggestions for a History of the Maori People," considers that Ulunui refers to Ur of the Chaldees. The word *uru* in vernacular Maori speech means "west," a significant and interesting fact, when we consider the relative positions of India and southern Sumeria.

The Rarotongans know the old homeland by the names of Avaiki, Atia, and Atia-te-varinga-nui, the old rice name again appearing.

Mr. S. Percy Smith publishes some conjectures as to these names in his work "Hawaiki," and states his opinion that the ancestors of the Maori came from India. Dr. A. K. Newman, in "Who are the Maoris?" upholds this opinion. Fornander concluded that they came from India, but originated in the land of Saba, in south-east Arabia. Mr. Smith, relying upon native genealogical records, places the date of the Polynesian exodus from India at about 450 B.C. Such records the present writer has by no means so firm a faith in, save in their later parts. When closely examined most of such records show in their earlier stages names that are apparently those of personifications and cosmogonic conditions or phases. Again, Mr. Smith refers to the Pleiades year of India and Polynesia, including New Zealand, the same being a remarkable and very interesting fact. His identification of Puta of Maori tradition ("Hawaiki," 3rd ed., p. 88) with Buddha of India is of a tentative nature.

J. R. Logan, the renowned ethnologist, gave it as his opinion that the Polynesians are a branch of the ancient Gangetic race of India that has been in that land from a remote antiquity. In his reference to this opinion Mr. Smith remarks that the Polynesians are probably the remnant of a very ancient race, and that they have preserved peculiar concepts and myths that have affected the mythology and religions of Egypt and the Babylonian region. Here we have one of the most highly interesting subjects connected with the origin of the Maori, a subject already referred to. It is one, however, that must be left for a future paper. The Journal of the Polynesian Society contains some enlightening articles connected with this subject, and the survivals of ancient Asiatic beliefs, institutions, etc., in Polynesia. Some of the more notable are those on "Asiatic Gods in the Pacific," by E. Tregear, and "Asiatic and Polynesian Points of Contact," by S. Percy Smith.

Divers writers refer to the interesting fact that Ra the sun god of Egypt and Babylonia reappears as *ra* = the sun in Polynesia. They might have added that Ra-tum, the personified form of the setting sun in Egypt reappears in Eastern Polynesia as *ra-tumu* = the setting sun. Such writers enlarge on the absence of evidences of a sun cult in Polynesia and New Zealand, whereas both regions teem with such evidence. The above erroneous assumption is due to the fact that those writers have not studied the subject of personifications of natural phenomena which form the basis of Polynesian myth and religion.

Fornander believed that he had traced the Polynesians back to Indonesia, and that faint traces carried them back to north-west India and to the shores of the Persian Gulf. Also that the Polynesian language carries us northward of the latter area, to the Aryan region, at a period long prior to the Aryan invasion of India. Yet again he

held that the remote ancestors of the Polynesians, when in those far regions, had been affected by Cushite civilisation. This racial term of Cushite does not appear to be at all a satisfactory one, and we have but a vague idea of what peoples were included in that ethnic unit. Fenton employs the term as including the Chaldeans, Accadians and Babylonians of antiquity. Presumably the Cushites were Turanians possibly it was a vague collective name for Turanian peoples, anyhow it is not apparently sufficiently precise a term for present day use. The Accadians seem to have been a Semitic folk, and the pre-Semitic people of the Babylonian region were the Sumerians. Mr. Fenton states that the kingdom of Ur included many people who were sea traders, hence they would be acquainted with India, also with the marvellous civilisation of Arabia Felix that existed in those remote times. The Arabian coast seems to have been the western limit of the range of the "sewed boats," as anthropologists term the long boats with one or more strakes lashed to the sides. This of course describes the vessels of the Polynesians. It may be here mentioned that India seems to have marked the westward limit of the outrigger, from which land it extended across the Pacific to the eastern bounds of Polynesia, but was not known in the Americas.

Fenton's work, alluded to above, is one of considerable interest, but some of his data does not inspire confidence, and many of his deductions and comparisons seem far fetched. At page 16 of that work, however, appear two statements of much interest. The writer states that Sin, the moon god of Babylonia seems to have also been known by the name of Rono. If this be a fact then we have a very remarkable parallel in Polynesia. Fornander has shown that, in Hawaiian lore, Sina the moon goddess, when she took up her abode in the heavens, took the name of Lono. This name is equivalent to Rono; it is the Rongo of the Maori and the Ro'o of Tahiti. Hence we have Sin and Rono as names for the moon god in Babylonia, also Sina and Rono as names for the moon goddess in Polynesia. Rongo of New Zealand, who represents the moon, seems to be a male being, and the Maori moon goddess Hina (the *s* is absent in Maori) does not appear to be closely connected with him in Maori myth.

Fenton's other interesting statement alluded to is as follows:—"Tu, the god of death and bloodshed, representing the setting sun, and Ra, the sun god, were generally recognised over all Akkadia." Here we have 'Tu who was one of the principal gods of Polynesia, and in New Zealand he represents just what Fenton assigns to him in ancient Accadia, namely death and bloodshed, while he probably personifies the setting sun. As to Ra, this is the ordinary name for the sun throughout Polynesia. Fornander remarks that the great Polynesian trinity, Tane, Tu, and Rongo represent Light, Stability and Sound. In regard to Tane he is certainly correct; in the other

two cases he is wrong. Here he committed the error of taking the ordinary meanings of the two words *tu* and *rongo*, as employed in vernacular speech. It may be thought that these passages are a digression from our subject, namely the origin of the Maori, but these parallels or analogies constitute important ethnographical evidence as to the former habitat of the Polynesians.

Regarding the fact that writers on the origin of the Maori favour the theory that the Polynesians reached what we now know as Polynesia early in the present era, that is about the fifth century, there is one matter that has not been sufficiently stressed. Unless we push back the time of his departure from India, assuming for the nonce that he came from that land, how can we account for the fact that the Polynesian was ignorant of metals and written language? Had the Polynesians ever used iron there should be some trace of the fact in speech or tradition, as we have seen in the case of rice, however barren of the metal their island homes might be. We must either bring him out of India at a very early date, or allow him to sojourn in far western isles such as Indonesia for a long period ere he reached the isles he now occupies. The forms of script employed in Java and Sumatra, that pertaining to the Kawi speech of the former isle, and that of the Battak folk of Sumatra, are probably not of great antiquity, and besides they were confined to two regions. They are supposed to have been derived from the Devanagari script of India, of about the third century B.C. But in India we have the scene of a very ancient civilisation, where metals and written language have long been known. Did the ancestors of the Maori leave India ere they had advanced sufficiently in culture to appreciate the use of metals and the advantages of written language, and yet possess the skill and intelligence necessary to all deep sea voyagers? Or have they forgotten those useful aids during their long sojourn in the far scattered lands of the Many Isled Sea?

Mr. R. S. Thompson was the author of a series of articles on the origin of the Maori that were published in "The Maori Record" in 1905-6. Here we have a writer who recognised the difficulty we have referred to, hence he brings the Maori from India to Indonesia in neolithic times, that is to say, during the stone age. But he settles him in Sumatra for a long period, which island he considers is the Avaiki-te-varinga of Rarotongan tradition. This name of Hawaiki he considers was applied to Sumatra, not to India, and that its original form was Hawai-ariki. Both these contentions seem to be doubtful, when we remember the East Coast Maori tradition that Hawaiki-nui was the name of a peculiarly *tapu* place in the great hot climate land of Irihia. From that land eleven days' sail took the migrating forbears of the Maori eastward to the land of Tawhiti-roa, which Mr. S. Percy Smith identifies as Sumatra. Apparently



Hawaiki was not originally the name of a country or region, but merely of a place. From that place spirits of the dead departed for the Po, that is to say, the spirit world. As an old Maori expressed it, "*Ka ikia nga tangata ki te Po*"—"The people were swept away to the spirit world."

Into the question of language I do not propose to enter in this little paper, for he who treads that path treads on dangerous ground and encounters many pitfalls. In this connection we detect the weakest links to be found in the various theories as to the origin of the Maori, and the evidence brought forward in their support. In some writings on these subjects Maori words have been mangled, dissected, and remoulded in a manner truly marvellous, in order to allow of some strained parallel to be drawn with words of ancient, far off tongues, of which we know but little. In many such languages strange forms of script were employed, and we know not what phonetic values to assign to the different characters, or to their hypothetical parallels in our own alphabet.

Thompson, in his Maori Record articles, claims that the Polynesians are one of the purest of known races. However, that may be, the same cannot be said of the Maori of New Zealand. Here we have a people of very mixed physical characteristics. There is a marked Melanesian strain in the Maori; he has intermarried largely with the dark skinned folk of the Western Pacific. Early voyagers and sojourners on these shores told us of the two different types to be seen among our Maori folk. Dr. Scott, in his paper on Maori craniology, published in Vol. 26 of the "Transactions of the New Zealand Institute," shows clearly the admixture of the two races as seen in head form. The districts in which he claims the Melanesian attributes are most marked, are those in which the original settlers of these isles, the Mouriuri folk, were the most numerous. Thompson seems to hold that the Polynesian intermarried with dark skinned peoples in Indonesia, but the fair skinned Samoans, Marquesans, and others seem to show that such intermarriage cannot have gone far. We know that our Maori folk, the Polynesian element, came hither from Eastern Polynesia, but we also know that they possess much more marked Melanesian attributes than do the natives of that region. The only conclusion we can come to is that the incoming Polynesians intermarried to a considerable extent with a dark skinned folk found by them in possession of these isles. Other evidence in favour of this assumption must be reserved for a future paper. \*

Thompson defines the Polynesian language as being a primitive form occupying an intermediary position between the lower aspect of human speech and true agglutinative tongues.

The same writer traces the Polynesian backward to some unidentified region in Central Asia, and, as already stated, locates him in Sumatra at a very early period, thus getting over the difficulty connected with metals and written language. He also believes that they reached Samoa about 1000 B.C., nearly fifteen hundred years prior to the date that Fornander and S. P. Smith assign to that event. Truly the range is a wide one.

Thompson concludes his remarks on the Iranian Maori by expressing his belief that they left or passed through, what is now called Baluchistan in late neolithic times, and that they were a Caucasian people of the Alpine branch which eventually settled in Sumatra. Professor Keane has also placed the original Polynesian among the Caucasian peoples in his family tree of the Hominidae, and claims that he represents the main subdivision of the Indo-Oceanic Caucasians.

Thompson does not bring the original Polynesian folk from, or through India, he thinks that they reached the ocean up the Persian Gulf, and acquired the art of seamanship from the Phenicians long before Alexander's great Asiatic raid. Contact with sea-roving Phenicians made them ocean wanderers, and, long centuries later, they became the Vikings of the South, roaming far and wide over the vast Pacific.

An article on the Malay Archipelago in the Encyclopædia Britannica of 1902 speaks of a remnant of Polynesians as still dwelling in the Mentawi Islands, near Sumatra. A few words of Mentawi speech that appeared in the "Journal of the Polynesian Society" do not, however, seem to bear a Polynesian aspect. Thompson places the final expulsion of the Maori-Polynesians from Sumatra at about 500 B.C.

A brief tradition collected by Mr. Smith from Maori sources is of interest. It is to the effect that Hawaiki-nui was a mainland, not an island; that the southern part was mostly plains, with a high ridge of mountains, always snow-clad, to the north, and through which a country ran a river called the Tohinga. This word in Maori is a derivative of *tohi*, and denotes a sacred baptismal rite. Mr. Smith inclines to the view that India is here indicated, the snowy range being the Himalaya mountains, and the Tohinga the sacred Ganges.

An interesting tradition preserved by the Maori is to the effect that, in remote times, their ancestors knew or encountered a fair skinned folk in far lands. Another item of interest is the very persistent fair skinned, red haired type of Maori. This strain is said to be very persistent, sometimes missing a generation in a family, but always reappearing. This looks like a case of atavism.

Another subject of much interest is that of parallels, of analogies between the myths, etc., of Polynesia, including New Zealand, and

those of Southern Asia. In myth, religion, ritual, and other subjects we note some very remarkable resemblances, and these lead the student to view many of those observed in the Pacific as survivals of ancient contact with Asiatic culture. These evidences are somewhat numerous, and must be reserved for a future paper. The present paper is by no means an exhaustive one, nor is the work of compilation well balanced; it may be described as an *olla podrida*.

The Polynesians have named many lands after the old homeland and sojourning places of the race; their thoughts ever turn to the motherland of the mist laden past; their spirits return thither when Aitua and Maiki-nui destroy their bodies. The old and loved *wa kainga* of the race is the place whereat the spirit of the Maori is purified, and whence it departs to the spirit world. On no map made by human hand can he point out that homeland, but, when he greets with song, and tears, and ceremonial dance, the heliacal rising of the Pleiades, he knows that they still look down on the hidden land far beyond the hanging sky.

Even so the spirits of the dead fare forth upon the four-way path that is laid down by their ancestor Tane-te-waiora, even as expressed by an ancient aphorism of their race—" *Me he kawau ka tuku ki roto ki te aro maunga*," ("Like a cormorant making for a mountain face," i.e., like a homing-bird).

These brief notes represent a mere scanning of the published matter relating to the original home of the Maori and his brethren of Polynesia. The evidence, such as it is, is in favour of an Asiatic origin for the Polynesian race. As shown, the names for the original homeland, and early sojourning places, as preserved by Polynesians, are not known to us. In two cases only, those of Irihia and Uru do we recognise the names of known lands. When, however, we come to examine the myths, religion, concepts and institutions of the Maori, we shall meet with many very remarkable analogies to those of south eastern Asia. All these subjects, as also others, must be closely and ceaselessly studied when we essay the highly difficult task of tracing the origin of a scriptless and far travelled people.

The Polynesians maintain that their forbears ever sought the rising sun, the red road of Tane, the east, after leaving the homeland. And that is why their spirits flit westward when death releases them!

# MAORI SOMATOLOGY.

## RACIAL AVERAGES.

BY TE RANGI HIROA (P. H. BUCK), D.S.O., M.D.

### IV. (Continued from Vol. XXXI., No. 4.)

#### CHEST MEASUREMENTS.

ANTERO-POSTERIOR DIAMETER.—The antero-posterior diameter was taken at the level of the manubrium with the xiphi-sternum. This level was taken on the advice of Professor Keith.

TABLE XXIII.—ANTERO-POSTERIOR DIAMETER OF CHEST.

Inches.	No. of Cases.	Percentage.
6½	4	·9
¾	10	2·4
7	44	10·6
¼	45	10·8
½	85	20·4
¾	48	11·5
8	96	23·1
¼	34	8·1
½	26	6·2
¾	9	2·1
9	5	1·2
¼	4	·9
½	1	·2
¾	0	·0
10	2	·4
¼	1	·2
½	1	·1
Total ..	415	

Average 7·8 inches.

LATERAL DIAMETER.—This was taken at the same level as the former measurement, namely the sterno-ensiform joint. The average diameter for 415 cases was 11 inches.

TABLE XXIV.—LATERAL DIAMETER OF CHEST.

Inches.	No. of Cases.	Percentage.
9¾	4	·9
10	23	5·5
¼	33	7·9
½	43	10·3
¾	71	17·1



TABLE XXIV.—LATERAL DIAMETER OF CHEST (Continued).

Inches.	No. of Cases.	Percentage.
11	90	21.6
$\frac{1}{4}$	59	14.2
$\frac{1}{2}$	45	10.8
$\frac{3}{4}$	23	5.5
12	17	4.1
$\frac{1}{4}$	2	.4
$\frac{1}{2}$	4	.9
$\frac{3}{4}$	1	.2
Total	415	

Average 11 inches.

CHEST CIRCUMFERENCE.—This was taken on a line corresponding to the lower angle of the scapula behind and slightly below the nipple in front. The measurement was recorded whilst the chest was at rest between inspiration and expiration. The two diameters were taken during a similar period.

TABLE XXV.—CHEST CIRCUMFERENCE.

Inches.	No. of Cases.	Percentage.
30 $\frac{1}{2}$	1	.2
31	2	.4
$\frac{1}{2}$	4	.9
32	7	1.6
$\frac{1}{2}$	9	2.1
33	27	6.4
$\frac{1}{2}$	24	5.8
34	51	12.2
$\frac{1}{2}$	45	10.8
35	53	12.7
$\frac{1}{2}$	53	12.7
36	46	11.0
$\frac{1}{2}$	34	8.1
37	22	5.3
$\frac{1}{2}$	9	2.1
38	10	2.4
$\frac{1}{2}$	6	1.4
39	6	1.4
$\frac{1}{2}$	2	.4
40	2	.4
41 $\frac{1}{2}$	1	.2
43	1	.2
	415	

Average 35.2 inches.

THE UPPER LIMB.

Owing to the limited time on the voyage, only three measurements of the upper limb could be taken. These were the length of the upper arm and the fore arm and the maximum circumference of the upper arm.

UPPER ARM LENGTH.—The measurement was taken from the outer margin of the acromion to the joint interval between the humerus and radius.

TABLE XXVI.—UPPER ARM LENGTH.

Inches.	No. of Cases.	Percentage.
10	1	.2
$\frac{1}{4}$	1	.2
$\frac{1}{2}$	6	1.4
$\frac{3}{4}$	5	1.2
11	14	3.3
$\frac{1}{4}$	17	4.1
$\frac{1}{2}$	33	7.9
$\frac{3}{4}$	33	7.9
12	60	14.4
$\frac{1}{4}$	51	12.2
$\frac{1}{2}$	90	21.6
$\frac{3}{4}$	43	10.3
13	43	10.3
$\frac{1}{4}$	9	2.1
$\frac{1}{2}$	7	1.6
$\frac{3}{4}$	1	.2
14	1	.2
Total .. 415		

Average 12.4 inches.

LENGTH OF THE FOREARM. — From the humero-radial joint interval to the styloid process of the radius. For 417 cases, the average is 10 inches.

TABLE XXVII.—FOREARM LENGTH.

Inches.	No. of Cases.	Percentage.
8 $\frac{1}{2}$	2	.4
9	20	4.8
$\frac{1}{4}$	28	6.7
$\frac{1}{2}$	49	11.7
$\frac{3}{4}$	51	12.2
10	122	29.2
$\frac{1}{4}$	61	14.6
$\frac{1}{2}$	50	12.0
$\frac{3}{4}$	16	3.8

TABLE XXVII.—FOREARM LENGTH (Continued).

Inches.	No. of Cases.	Percentage.
11	14	3.3
$\frac{1}{4}$	2	.4
$\frac{1}{8}$	2	.4
Total ..		417

Average 10 inches.

MAXIMUM CIRCUMFERENCE OF THE UPPER ARM.—The upper limb was straightened and the tape passed round the greatest girth with the muscles uncontracted.

TABLE XXVIII.—UPPER ARM CIRCUMFERENCE.

Inches.	No. of Cases.	Percentage.
$9\frac{1}{2}$	1	.2
$\frac{3}{4}$	0	.0
10	8	1.9
$\frac{1}{4}$	10	2.4
$\frac{1}{2}$	21	5.0
$\frac{3}{4}$	29	7.9
11	48	11.5
$\frac{1}{4}$	49	11.7
$\frac{1}{2}$	65	15.6
$\frac{3}{4}$	45	10.8
12	52	12.5
$\frac{1}{4}$	23	5.5
$\frac{1}{2}$	27	6.4
$\frac{3}{4}$	13	3.1
13	12	2.8
$\frac{1}{4}$	6	1.4
$\frac{1}{2}$	2	.4
$\frac{3}{4}$	1	.2
14	3	.7
Total ..		415

Average 11.5 inches.

The relation of the circumference of the upper arm to its length is shown by the formula,  $\frac{\text{Upper arm circum.} \times 100}{\text{Upper arm length}}$  For this series the average index is 92.

The relation of the length of the upper arm to that of the forearm is shown by the formula,  $\frac{\text{Forearm length} \times 100}{\text{Upper arm length}}$  For this series the average index is 83.

THE LOWER LIMB.

LENGTH OF THE THIGH.—This was taken from the upper edge of the great trochanter to the margin of the superior extremity of the tibia on the outer side of the knee-joint.

TABLE XXIX.—THIGH LENGTH.

Inches.	No. of Cases.	Percentage.
14 $\frac{1}{4}$	2	·4
$\frac{1}{2}$	3	·7
$\frac{3}{4}$	7	1·6
15	24	5·7
$\frac{1}{4}$	24	5·7
$\frac{1}{2}$	42	10·0
$\frac{3}{4}$	29	6·9
16	62	14·8
$\frac{1}{4}$	42	10·0
$\frac{1}{2}$	47	11·2
$\frac{3}{4}$	31	7·4
17	33	7·9
$\frac{1}{4}$	27	6·4
$\frac{1}{2}$	16	3·8
$\frac{3}{4}$	15	3·5
18	6	1·4
$\frac{1}{4}$	4	·9
$\frac{1}{2}$	1	·2
$\frac{3}{4}$	1	·2
19	1	·2
$\frac{1}{4}$	0	·0
$\frac{1}{2}$	1	·2
Total ..	418	

Average 16·3 inches.

CIRCUMFERENCE OF THE THIGH.—This was taken midway between the pelvis and the knee with the limb straightened and the muscles uncontracted.

TABLE XXX.—THIGH CIRCUMFERENCE.

Inches.	No. of Cases.	Percentage.
18	3	·7
$\frac{1}{2}$	8	1·9
19	19	4·5
$\frac{1}{2}$	31	7·4
20	41	9·7
$\frac{1}{2}$	81	19·3
21	70	16·7
$\frac{1}{2}$	55	13·1



TABLE XXX.—THIGH CIRCUMFERENCE (Continued).

Inches.	No. of Cases.	Percentage.
22	43	10·2
$\frac{1}{2}$	39	9·3
23	12	2·8
$\frac{1}{2}$	12	2·8
24	3	·7
$\frac{1}{2}$	1	·2
25	1	·2
Total .. 419		

Average 21·1 inches.

LENGTH OF THE LEG.—This was taken from the margin of the superior extremity of the tibia on the inner side of the knee-joint to the tip of the internal malleolus.

TABLE XXXI.—LENGTH OF LEG.

Inches.	No. of Cases.	Percentage.
11 $\frac{3}{4}$	1	·2
12	0	·0
$\frac{1}{4}$	0	·0
$\frac{1}{2}$	9	2·1
$\frac{3}{4}$	2	·4
13	26	6·2
$\frac{1}{4}$	14	3·3
$\frac{1}{2}$	44	10·5
$\frac{3}{4}$	32	7·6
14	67	16·0
$\frac{1}{4}$	39	9·3
$\frac{1}{2}$	52	12·4
$\frac{3}{4}$	30	7·1
15	51	12·2
$\frac{1}{4}$	18	4·3
$\frac{1}{2}$	13	3·1
$\frac{3}{4}$	8	1·9
16	6	1·4
$\frac{1}{4}$	3	·7
$\frac{1}{2}$	2	·4
$\frac{3}{4}$	1	·2
Total .. 418		

Average 14·3 inches.

MAXIMUM CIRCUMFERENCE OF THE CALF.—The muscles were not contracted whilst the measurements were being taken.

TABLE XXXII.—CIRCUMFERENCE OF CALF.

Inches.	No. of Cases.	Percentage.
12 $\frac{1}{4}$	1	.2
13	2	.4
$\frac{1}{4}$	6	1.4
$\frac{1}{2}$	9	2.1
$\frac{3}{4}$	23	5.5
14	36	8.6
$\frac{1}{4}$	29	6.9
$\frac{1}{2}$	45	10.7
$\frac{3}{4}$	43	10.2
15	66	15.7
$\frac{1}{4}$	35	8.3
$\frac{1}{2}$	39	9.3
$\frac{3}{4}$	25	6.0
16	19	4.5
$\frac{1}{4}$	16	3.8
$\frac{1}{2}$	8	1.9
$\frac{3}{4}$	5	1.2
17	8	1.9
$\frac{1}{4}$	0	.0
$\frac{1}{2}$	2	.4
18	1	.2

Total :. 418

Average 14.9 inches.

One of the most marked physical characteristics of the Maori people that strikes the general observer is the muscular development of the lower limb. This is readily noticed when a Maori and a European football team walk on to the field stripped for the fray. In the present series of measurements, general observation is supported by the results of the measurements of the circumference of the thigh and calf. As shown above, they are respectively 21.1 and 14.9 inches. The effect is no doubt enhanced by the comparatively shorter length of the lower limb. For a true comparison with white New Zealanders and people of Melanesian stock, it would be interesting to note, not only the actual measurements but the relation of circumference to length.

The relation of thigh circumference to thigh length is shown by the formula,  $\frac{\text{Thigh circum.} \times 100}{\text{Thigh length}}$  For this series the average index is 129.

A similar index for the leg is given by the formula,  $\frac{\text{Leg circum.} \times 100}{\text{Leg Length}}$  For this series it is 104.

The relation of the length of the leg to that of the thigh is shown by the formula,  $\frac{\text{Leg length} \times 100}{\text{Thigh length}}$  This works out at 87.

The Maoris have always taken special pride in well formed lower limbs. Mothers employed massage and manipulation on their infants to secure this end. I can remember my own mother assuring me in my childhood that any approach I possessed to this standard was due to the manipulative care that she lavished upon me in the days of my infancy. Besides massage, the lower limbs were pulled so as to straighten them and prevent any tendency to prominent knees. A saying from the Mahaki tribe of Giberno bears this out:—

“Totoia nga waewae o to tamahine, kia pai ai te haere i nga parae o Manutuke.”

“Stretch the lower limbs of your daughter that she may walk with grace along the level flats of Manutuke.”

(To be continued.)

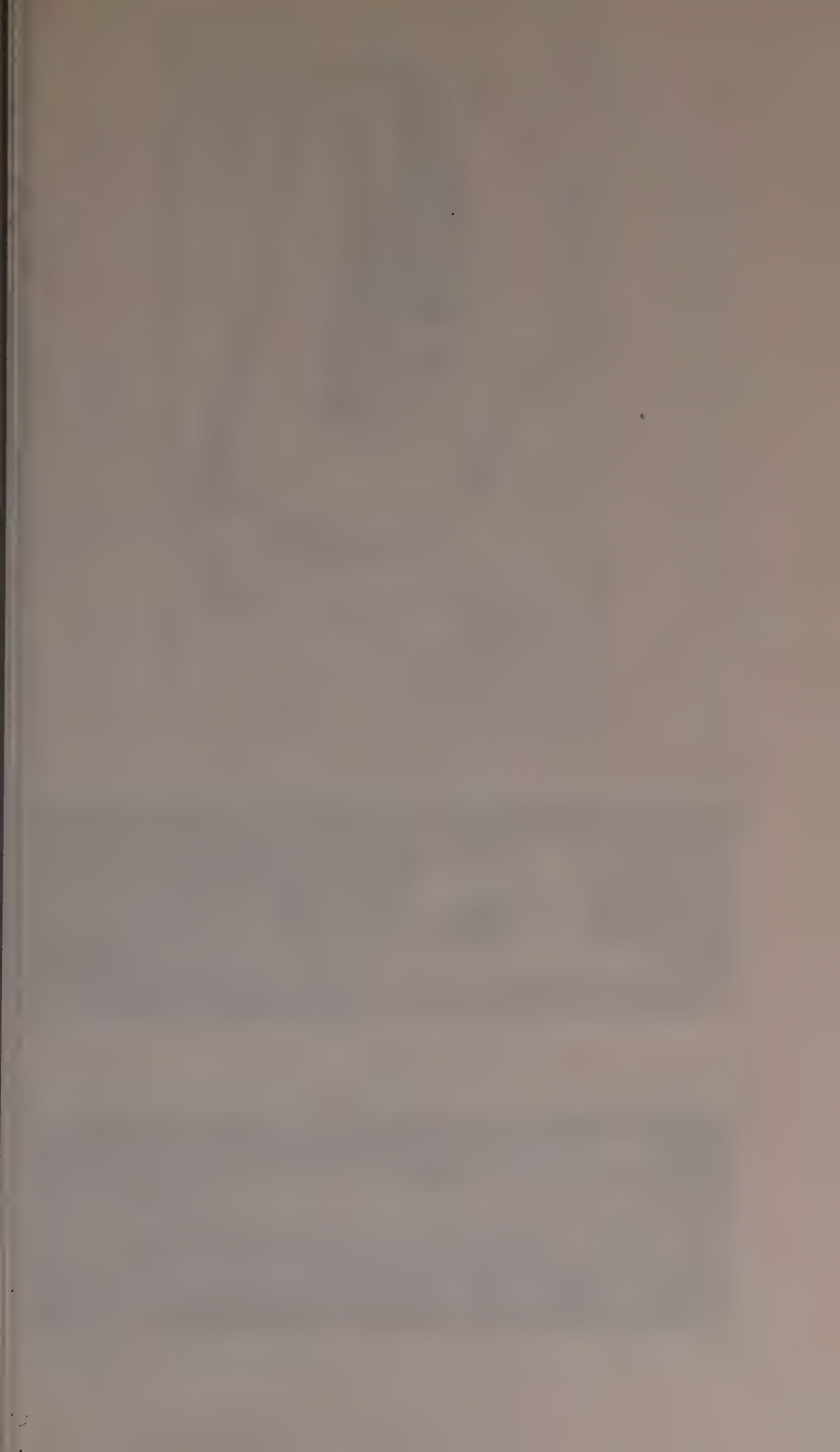






FIGURE 1.



FIGURE 2.



FIGURE 3

## "REI-PUTA." A MAORI PENDANT.

BY GEO. GRAHAM.

THIS type of Maori ornament has always been considered very rare. I can only recollect seeing one specimen in Maori possession, a splendid one which Te Manihera, or Maunsell, an aged man of the Kaipara North Heads, delighted to wear. Apparently it was "his sole remaining joy," for I do not think that he possessed any other memento of former days. Lately, however, I had the opportunity of examining another of these interesting relics of pre-European times, it being therefore only the second one I have come across among the Natives in a period of over forty years. This *rei-puta* comes from the Bay of Plenty District and is reputed to have been originally the property of Tuhiku of the Arawa tribe, from whom it passed to relatives at Matata among other heirlooms as *Roimata* (tears), on the occasion of a ceremonial connected with the dead. The present holder recently received it back from her Matata relatives who had held it for six generations as the appended family tree shows, the reason being likewise as a mark of condolence or *roimata* on the death of her father. It is thus an interesting survival of an ancient custom, the interchange of tribal heirlooms as mourning mementos between related families.

Like most of the *rei-puta* figured in the illustrations of the earliest books on New Zealand, this specimen is engraved or carved at its end with a semi-human or fish-like face. What it is intended to represent is quite unknown to the Natives now-a-days, in fact the meaning of the ornament itself is now forgotten.

Maori ornaments were not merely ornamental, they had each some talismanic or emblematic significance, as for example the *tiki*, the *mania*, the *pekapeka*, each in some way connected with some branch of Maori mythology and its correlated rites and ceremonial.

Tukumana Te Taniwha (now perhaps one of the most reliable persons in these parts in respect of these matters), states that these ornaments were never common so far as he could recollect in the Hauraki district. He has a vague idea that the ornament represents a *tuoro* or eel god, and was in some way connected with the fishing ceremonials of former days, a kind of talisman to bring luck and avert evil.

In that interesting (but very in-accurate) little book "The New Zealanders," there are several illustrations showing chiefs wearing the "*Rei-puta*," and on page 262 are shown two specimens of same.

Hamilton\* figures a similar pendant and also three specimens of what is evidently an allied type, with elaborate chevron ornamentation. He says, "The first specimen [one of the chevron type] is a carved pendant cut from hard dense whale-bone; it was found at the old Moa hunter's camp at the mouth of the Shag River.† The next specimen [*rei-puta* type] is a very rare form of tongue shaped pendant seen in most of the drawings illustrating Cook's Voyages; it is exceedingly rare in collections, although apparently common at that time. This one was found at Lake Ellesmere, Canterbury."

Describing two of the chevroned pendants he says:—"Figure 2, two bone pendants, one from a camp at the mouth of the Shag River,† and another, without the median ridge, but otherwise of the same type from Cape Campbell. These are fully described in 'Transactions N.Z. Institute,' Vol. XXIX., page 174, Plate IX."

Some years ago Mr. C. H. Lushington's yacht the "*Muritai*" visited Whangamumu, a bay a few miles south of the Bay of Islands. One of the members of the crew found there an almost perfect specimen of the chevron ornamented *rei-puta*, very elaborately carved and almost as perfect as when originally made, although lying on the foreshore shingle. Mr. Lushington recently presented this to the Auckland Museum, which possesses only one other specimen, somewhat imperfect, of the usual type, which was found on the Waitakarei sandhills, west of the city of Auckland.

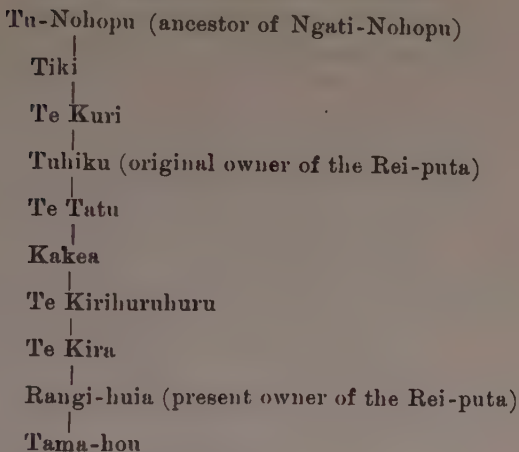
It is strange that so few specimens survived and that so little is known of those ancient ornaments. Probably the type is a local development of Polynesian and Melanesian whale-tooth pendants which in those regions are highly prized by the chiefs. From the fact that these ornaments were met with in localities so far apart as the Far North and the South Island, it is evident that they were in general use throughout New Zealand in olden times.

Figure '1 represents the Matata *rei-puta* which has attached to it a neck-cord (*taura*) and toggle of albatross bone (*poro-toroa*). With the kind permission of Mr. Cheeseman, I figure also two photos of the Whanga-mumu pendant above mentioned, one a side view, the other a front view. (Figures 2 and 3). Mr. Cheeseman has pointed out that the chevron ornamentation allies it with the Kaitaia carving described in this Journal at page 91 of Vol. XXX.

\* "*Maori Art*," Plate XLVII.

† Mr. J. W. Murdoch states that the pendant was not found at Shag River but at Waikouaiti.

GENEALOGICAL TREE OF NGATI-NOHOPU.



NOTES ON THE "REI-PUTA" TYPE OF PENDANT.

Mr. Graham's very interesting new data enable us to name one type of Maori pendant about which no information was previously on record. We do not think, however, that he has demonstrated any connection between the *rei-puta* and the "chevroned" type of pendant. Both are elongated pendants, and both are usually made of whale-ivory; thereafter all resemblance ceases.

A fully-illustrated general account of all the pendant types of the New Zealand-Chatham Island area is much to be desired. Many of the forms are so inter-related that they cannot profitably be treated separately. In the absence of such a general account the following notes on the two types described by Mr. Graham may be useful to students.

I.—CHEVRONED PENDANT.

The chevroned pendant, as will be seen from the notes on individual specimens which follow, has a distribution closely corresponding with that of the *rei-puta*. Neither has yet been recorded from the western coasts of New Zealand, but this is probably accidental and it is likely that both pendants have been fashionable at some period in all districts. Neither has yet been recorded from the Chatham Islands. Unlike *rei-puta*, the chevroned type has several strongly-marked varieties. The ground-work is the same in all varieties but one, and has some points of resemblance, as Hamilton long ago pointed out, to the sacrum of a bird. This is seen, without any addition or complication, in the Cape Campbell example figured



by Hamilton,\* and in a beautiful example from Cape Saunders recently presented to the Otago University Museum. The other example figured by Hamilton† had a chevroned median ridge, represented in the Cape Saunders' specimen by a slight plain ridge. The Whangamumu specimen has the upper end of its median chevroned ridge decorated with a pair of outward-facing human figures. Both of the stone examples figured by Hamilton‡ show a single human head at this point. A splendid chevroned pendant from Banks Peninsula substitutes at the same point a bird, sculptured naturalistically. The outline of a bird in low relief also appears in the by-no-means typical specimen from Lake Ellesmere.§ Finally there is a variety, which has never yet been figured, represented by four specimens from Otago, which diverge strongly from what is usually regarded as the typical form. Instead of curving from back towards the front they curve laterally. The two best preserved specimens of this variety are in the collection of Mr. Willi Fels, Dunedin, and were found with a skeleton near Cape Saunders. A pair of outward-facing human faces are here present, corresponding in position to the two human figures of the Whangamumu pendant. The two other specimens of this variety are much damaged. One is in the Dominion Museum, and the other in the Museum of the University of Otago.

As to the origin of this remarkable "chevroned type" there exists at present no evidence. Hamilton's conjecture of the sacrum of a bird would be more convincing if we had only the simplest specimens, but it seems to be negatived by the more complex specimens and especially by those having a lateral curve. It is significant that no Maori information has ever been obtained as to this chevroned type, nor has any European ever recorded seeing one in use. All examples have been found in circumstances indicating antiquity, and it is possible that a gap in time separates them from *rei-puta*, as well as difference in shape. The minuteness of the details of the design calls to mind the bone work of the Marquesans.

## II.—REI-PUTA.

There are two specimens of *rei-puta* in the Skinner Collection, New Plymouth Museum, one with a shark-like mouth cut on the under surface, the other without mouth at all. Another example is in the Dominion Museum. The British Museum has several good examples, but the Hancock Museum, Newcastle-on-Tyne, has probably the finest example in existence. The localities of none of these

\* "Maori Art," Plate XLVII., 2. "Trans. N.Z. Inst.," IX., 280.

† "Maori Art," loc. cit. Wrongly there stated to be from Shag River. Its true locality is Waikouaiti.

‡ "Maori Art," Plate LVI., 4.

§ "Maori Art," Plate XLVII., 1. This is a hybrid with *rei-puta*.

are known. Hamilton\* figures one from Foveaux Strait, and another from Lake Ellesmere. The specimens figured by Parkinson and other early explorers are probably all from the east coast of the North Island.

All known examples show a strong family likeness. The essential features are, first, the thinness of the upper part of the pendant, passing abruptly into thickness at the lower end; and, second, the eyes set on either side of the massive lower part. The mouth is a much less constant feature, shown sometimes on the same surface as the eyes, at other times on the under-surface. Any theory as to origins must account for these three features and need take no account of purely individual peculiarities.

The best-known type of fish-hook in Polynesia is the "minnow" type, consisting of a stout shank shaped like a small fish, to the dorsal surface of which a stout bone point is attached.† The shank is usually made of pearl-shell, the glitter of which adds to its efficiency as a lure. Such a shank is slightly curved when seen from the side. The part to which the bone point is attached is comparatively thin, while at the proximal end there is a rapid thickening due to the more massive nature of the pearl-shell in the region of the hinge. Through this thicker part of the shank the hole representing the eyes of the fish is drilled. This hole is used for the passage of the cord which binds the fishing-line to the shank, the end of the line being fastened to the bone point (Figure 1). The peculiar transition from thinness to thickness in the shank is due solely to the natural shape of the pearl-shell, and when the shank is made of other material, such as whalebone or stalagmite, this feature is absent.

Pearl-shell is not found in New Zealand waters, but hooks of the minnow type were made by the Maoris, the shanks being usually made of stone, but occasionally of bone. It may be noted that these shanks were sometimes copied in attractive materials and worn as pendants; a set of four is on exhibition in the Otago University Museum. In many of the stone shanks the mouth of the fish is indicated by a small projection cut on the lateral edge.

The Maori practice of wearing as pendants small implements, the shape or material of which made them ornamental, has been recorded by several explorers, including Cook, who specifies small greenstone chisels. Several types of pendant have arisen through the conventionalisation of such implements, including the shanks already mentioned and the *hei matau*, the shape of which indicates what the name demonstrates, namely that the pendant is a copy of that type of fish-hook which is made in one piece. The resemblance of the

\* Dom. Mus. Bulletin 2, Fig. 8.

† Good examples are figured in B. M. Handbook to Ethnographic Collections, figs. 126 and 127.



FIGURE 1.  
Fish-hook of minnow  
type, with shank of  
pearl-shell. Tahiti.



FIGURE 2.  
Stone shank of hook of  
minnow type. Shag  
River mouth, Otago,  
New Zealand.

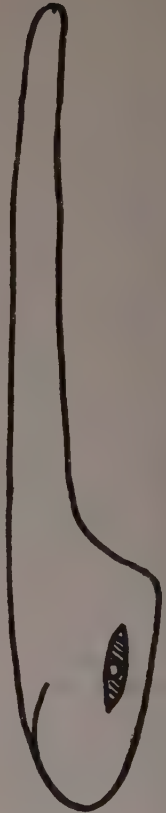


FIGURE 3  
Rei-puta made from  
cachelot tooth. New  
Plymouth Museum.

*rei-puta* pendant to the pearl-shell shank of a minnow is so remarkably close that we are justified in supposing that the former is a conventionalised copy of the latter. It is natural to suppose that in islands where pearl-shell is not found, fish-hook shanks made of that material, brought by Polynesian immigrants, would be highly valued and would ultimately be worn as ornaments. The demand for this type of pendant would doubtless exceed the supply and they would be copied in whale-ivory. The cachelot tooth would impose its proportions on the pendant, but all the essentials would remain in the thinness changing abruptly to thickness in the region of the head, the pair of fishy eyes, and in some cases a shark-like mouth.

H. D. SKINNER.

## SURF-RIDING BY CANOE.

BY W. H. SKINNER.

**D**URING the Summer of 1884, the writer was engaged upon the survey of the costal lands lying between the Mokau and Awakino rivers—Auckland-Taranaki Coast. A small native settlement, called Te Kauri, was situated on the north bank of the Mokau, adjacent to the ferry route over that river, and here resided what was left, about thirty, of that portion of the once numerous body of the Ngati-Maniapoto tribe that occupied the fertile strip of costal lands between the two rivers mentioned, during the first half of the 19th century, and the generations beyond. The large number of strongly posted old *pas*, long deserted, and now only traceable by their deep fosses and protective works, bears ample testimony to the large population that once occupied this country, an occupation that went back to the Tangata-Whenua, who were settled here and to the south, long prior to the coming of the "Tainui," with the ancestors of the present native occupiers.

The active head of Te Kauri village was Wetere Te-Rerenga, but the elder brother, Te Rangi Tuataka Takeri,\* was the real chief of the little settlement, and his final word was law in all matters of ancient Maori rite and custom.

One beautiful day in January, 1884, I had come in from my camp to confer with Te Rangi. The Kauri village was deserted by all but a few old women, who informed me that the people were on the sea beach, a short distance away. On arriving there I found the whole population gathered, taking part in, or watching and encouraging the contending parties, in a most exhilarating sport, or pastime, that was proceeding at the mouth of the river (Mokau). The leader in this animated scene was Te Rangi, a man at this time about sixty years of age, well set up and preserved.

The sport engaged in was "surf-riding" in canoes, something quite new to me. Two small handy canoes, varying in length from eighteen to twenty-five feet, were being used, in each of which were two paddlers, the steersman, and one in the prow. The position chosen for the "surf-riding" was ideal for the purpose, and here,

\* For the genealogies of these brothers see page 667 (Appendix) of Tregear's "Maori-Polynesian Comparative Dictionary."

doubtless for generations past, the old time Maori had indulged in this sport. This canoe running had to be taken at a certain time of the tide—about three-quarter flood—to fit in with the locality chosen (or similarly situated positions). The condition of the sea, too heavy, or insufficient break, also had to be considered. This in fact was essential.

On the occasion I am writing about—January, 1884—the day was beautifully fine, the tide about three-quarter flood, and the sea comparatively smooth outside, with an accompanying light break or roll over the bar, a quarter to one-third of a mile seaward. The bar had the effect of breaking up and reducing the ocean roll to a negotiable size for the small canoes to ride on, by the time the wave reached the “surfing” course which ran along abreast of the sand spit, forming the north side of river bank in this locality.

I arrived on the scene just in time to witness Rangi and his partner launch out for a “run.” Having got his canoe into the desired position, he awaited a suitable oncoming roller, just keeping a slight forward movement on the craft until the roll had approached within a few yards of the stern of the canoe, when the steersman gave a short word of command, and the two plunged their paddles into the tide, and with a few powerful strokes got the required “way” on to enable it to be taken up by the roller as it caught the stern of the canoe. The rest was left to the action of the wave, and the steersman. The canoe, if properly handled, was now rushing through the tide, keeping just roughly a little short of its own length in advance of the wave, with a cascade of water thrown off from either side of the prow, its expert helmsman, as rigid as one cast in bronze, watching intently the gradual curling of the roller (the bowman inactive, with paddle drawn in), until at the moment he judges the time has come, with a swift twist or turn of his paddle (a movement so deft and graceful that it could scarce be detected by those watching close at hand) the canoe was turned sharply to the right, the wave breaking as it passed beneath its keel, and riding gracefully down the outer slope of roller, turned seaward to repeat the manoeuvre. Had the steersman misjudged his time for turning by a fraction of time, disaster would have followed, and herein lay the skill of the surf-canoer. Rangi never made a mistake in this respect, but time and again the other less skilful gamesters, some of whom were women, misjudged the time when the wave would break, and running on just a fraction too long, were driven prow under and swamped, or caught on the turn by the breaking wave and capsized, in either case the occupants of canoe receiving a thorough ducking, to the great amusement of the crowd of onlookers. The swamped canoe was brought ashore, bailed and refitted, and set off again with another pair of “surfers” to try their skill, or luck, in this exciting game.



The most lasting impression made on my mind in this surfing incident, was that of the poise and skill of Te Rangi Tuataka Takere, the high-born *rangitara*, as he sat statue like, steering-paddle firmly grasped, his fine muscular figure and clean cut tattooed features, reproducing, with the general surroundings, a grand picture of pure Maoridom as it had been for centuries prior to A.D. 1884.

Alas! that we were to witness such a scene never again.

## NGATI-HUARERE.

### AN ACCOUNT OF THE WARS AGAINST THEM AND OF THEIR EMIGRATION TO THE NORTHERN DISTRICTS.

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BY GEO. GRAHAM.

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THE following narrative I took down from the dictation of Anaru Makiwhara (Maxwell). It throws some interesting light upon the ultimate fate of the Ngati-huarere tribe, or at least that section of them which lived in the Moehau Ranges.

The emigration of the survivors of this people to the north to join their kinsmen the Kapotai is also worth noting, as well as several references to the customs of *Atahu* and *horohorongā*.

These events evidently were part of the troubles narrated in the "Wars of Ngati-Huarere and Ngati-Maru-tuahu" (Journal, Vol. XXIX., No. 1), which relates more to the doings in the southern parts of the Hauraki Gulf.

The Whakapapa given at the end shows the relative connection of the chieftains mentioned herein.

#### MAHANGA COMES TO MARAETAI.

Mahanga was of Tainui, and he came to this district, Maraetai, from the west, that is to say from Pirongia. His party comprised many famous *toas* (warriors), among whom were Rahoparu, Tai-ekieki and Ngaro-ai-Te-Hotu.

They came to Pakihi Island (near the Sand Spit), there Mahanga heard of a maid of high rank, famous for her beauty, by name Te Aka-tawhia, a lineal descendant of Maru-tuahu.

Now Mahanga was already advanced in years, yet he desired that maiden for his wife, although she was a *pukī* (already betrothed); so he stayed at that place Pakihi, and his party returned home without him. Mahanga did not announce his intention, and meditated day by day how he might possess the maiden as his wife.

When Te Aka-tawhia came, engaged in some household duty, near him (for she was despite her rank an industrious girl), Mahanga thrust his *taiāha* at her body, saying: "*Tena to hukui-te paepae ō Uenuku.*" ("There is thy scraper—the threshold of Uenuku.") The girl had come to scrape some flax fibre to make some garments.

This was an act of *atahu*<sup>1</sup> (to enkindle love), and was also a disturbance of her status as a *puhi* (betrothed virgin); so she returned within her house, and when food was called would not come forth, for she was under the influence of the spell of *atahu*, exercised by Mahanga over her, and felt she had been humiliated by that old man's interference with her as above related.

Her brothers then came to her and asked her, "What is thy illness or distress?" To whom Te Aka replied, "Yes, I am ill, I am in distress; for I have been sadly humiliated by our guest Mahanga." She then detailed what had happened to her, and confessed she desired to take that old man for her husband. So her brothers understood Mahanga had cast spells of *atahu* over their sister, and consented to her marriage.<sup>2</sup> Her sons by Mahanga were Te Ao-tutahanga, the first born, and Te Manu-kaihongi, the second born.

#### MAHANGA KILLED BY NGATI-HUARERE AT HAURAKI.

Their children were now well grown when Mahanga asked his wife Te Aka, "*Kei whea to Ariki?*" ("Where is the high chief"?) Te Aka told him, "*Kei tera taha o Hauraki—Ko Puha, toku tungane, Ko to matou mata-mua tera.*" ("On that other side of Hauraki, Puha my brother, he is our first born.") So Mahanga prepared a canoe, and set off with his *mokai* (servant) to go across the Hauraki to the home of his brother-in-law Puha. His object was that the *ariki* of his wife might perform the ceremony of *horohoro* (purification) in respect of his sons by Te Aka.

But that night an easterly gale (*marangi*) came on, and the canoe of Mahanga was blown out of the course, and came to where Shortland Wharf now is. On shore were the Ngati-Huarere dancing in their village before a big fire. So Mahanga, being famished with hunger and cold, sent his *mokai* to seek food and fire, for he dreaded to go among Ngati-Huarere himself.

So the slave went into the assembly and succeeded in getting some food, and a smouldering stick whereby to kindle a fire. But Ngati-Huarere saw the sparks of the stick, and followed the *mokai*, and also found Mahanga, and killed them both.

#### WARS AS RESULT OF MAHANGA'S DEATH.

In due course news of this came to Ngati-tamatera at Te Puru (north of the Thames) so they came to avenge the death of Mahanga at the hands of Ngati-Huarere, whom they defeated and drove away.

(1.) *Atahu*.—There are many instances of this belief on record, and it is still prevalent: apparently equivalent to the Scottish belief in the "power of casting a glamour" possessed by persons.

(2.) The brothers of a girl have first right to consent to their sisters' marriages—taking priority to parents in that respect.

from those parts to the north to Manaia and Wai-au (Coromandel) where they lived under Ruamano their chief. Then Ruamano came with a party to Whaka-tiwai and attacked Ngati-paoa at that place, where was killed Tipa of Ngati-Paoa, whose body Ngati-Huarere took to Wai-au where it was eaten.

Thereupon Ngati-paoa and Ngati-whanaunga attacked the Ngati-Huarere at Wai-au and defeated them; the survivors under Ruamano, fled to the outer coast at Pungapunga (near Whanga-poua).<sup>3</sup> Here they were later on followed after, and Ruamano was caught and killed with many of his people. All these doings were to avenge the death of Mahanga.

#### THE ADVENTURE AT TE HURI-PUPU.

Now Te Ao-tutahanga and Manu-Kaihongi, the children of Mahanga and Te Aka-tawhia, had grown to manhood and went to Moehau to see their cousin Te Rakau, son of Puha, and lived there with that relative.

Whilst living there, Manu-kaihongi went in a fishing canoe of the Ngati-Rongo to go to the outer islands, but Te Ao-tutahanga and Te Rakau, his cousin, stayed at home at Wai-au. The canoe party coasted along towards Papa-aroha (North of Coromandel). They found the Ngati-Huarere living in great numbers at a place called Te Huripupu—near Tuki-tuki (south of Cabbage Bay). So the canoe party stayed at a rocky islet there for safety, where they gathered shell-fish for food. They were very sorely distressed for fresh water, but the Ngati-Huarere ashore prevented their getting any. Some of their party had been killed by Ngati-Huarere, and they were in serious plight, for they found their strength barely sufficient to navigate their canoe.

Now a *tohu* (sign) of their distress reached Te Rakau and Te Ao in their home at Te Wai-au, so they came in a canoe to see what the trouble was; and when they reached Te Huripupu, they found the survivors besieged on the Rocky Islet, and their canoe captured. Thirst was their pressing distress.

On the arrival of the relief party of Te Rakau and Te Ao a general engagement followed, and the Ngati-Huarere were defeated and fled away to the inland forests of Moehau.<sup>4</sup>

Now night had fallen and Manu-kaihongi thought of a ruse to get water, despite the fact that all the foreshore was occupied by the

(3.) *Whanga-poua*.—The bay of the *poua*—an extinct aquatic bird—which had not the power of flight: similar to a name place at the Chathams, said to be also having the same meaning—and that there may still be found the bones of this bird.

(4.) Hence the name of that place “Te Wai-ngungu o Manu”—the gurgling waters of Manu—in reference to the gourd filling.

Ngati-Huarere camps, who well guarded their water wells. Manu and a comrade got ashore in their canoe, and had got to a water-well where they were filling their gourds. Ngati-Huarere sentries, however, heard the gurgling of the water filling the gourds and came to investigate. Manu's friend escaped, and his comrades on the Islet pulled the canoe back with a long line as pre-arranged; but Manu himself was cut off and surrounded by Ngati-Huarere.

When his friends found Manu was left ashore they swam ashore from the islet and found him engaged in single combat with his *taiaha*.

Then Manu-kaihongi and his *hapu* dwelt in these parts, and built their *pa* at Tuki-tuki.

#### MANU-KAIHONGI CAPTURES PUKU.

Now Ngati-Huarere had gone into the far recesses of Moehau forests, and there built a series of dwellings in the trees at Pukekauri. Their home is still called "Pa-kauri." They numbered about one hundred people, but these facts were unknown to Manu and his people. They for a long time had lost all trace of Ngati-Huarere, who came at ebb-tides to a certain place to collect shell-fish, and thus it was they were at last discovered.

One day, Manu, ever fond of adventure, went alone along the coast and came to a certain place where he saw, to his surprise, the foot-prints of people who were of the Ngati-Huarere shell-fish gatherers. Then he knew that a remnant of these people still lived thereabouts, so he hid in the bush till ebb-tide. At that time, as he expected, he heard a party approaching from the forest, and soon they came into sight. Then he sprang from his concealment and attacked the Ngati-Huarere. He killed some, and the others fled, but he captured Puku (daughter of Pai-amana, the chief of that people). He returned home with his captured woman. His elder brothers seeing him coming along, understood Manu had captured her for a wife, and that he had again been in conflict with Ngati-Huarere. In fact Manu married the woman.

#### MANU-KAIHANGI MAKES PEACE WITH NGATI-HUARERE.

When Puku was expecting a child, Manu one day found her weeping, so he asked her why she wept. She told him she was weeping for her father and her people.

Manu asked, "Where is their *pa*?" Then that woman replied, "Inland, in the forests at Pa-kauri is their *pa*; their houses are up in the trees." Then Manu said, "Go, bring hither thy father and his people." The woman asked, "Will then you truly spare my father and my people if they so come at my bidding them?" "Yes" replied Manu, "he and his people will be truly spared by me, no man will kill them."



So that woman went forth into the forests to the home of her father and his people. Her father had thought her dead; so when she approached the tree-fort they came forth and cried over her. When their crying was finished, she announced the message from her husband Manu-Kaihongi; saying, "My husband hath indeed sent me hither to bring you all hence to him, his *pa* is at 'Tuki-tuki.'" Then the father asked, "Shall your husband truly spare us?" She then informed him of the promise given by her husband.

So her father Pai-amana came with all his *hapu*—men, women and children—to 'Tuki-tuki, to the home of Manu, and lived therein peace. Thus peace was made and honourably kept, hence the proverb, "*He whaka-mau-Rongo na Manu-Kaihongi*." ("A peace-making by Manu-Kaihongi.")

#### NGATI-HUARERE EMIGRATE TO THE NORTHERN DISTRICTS.

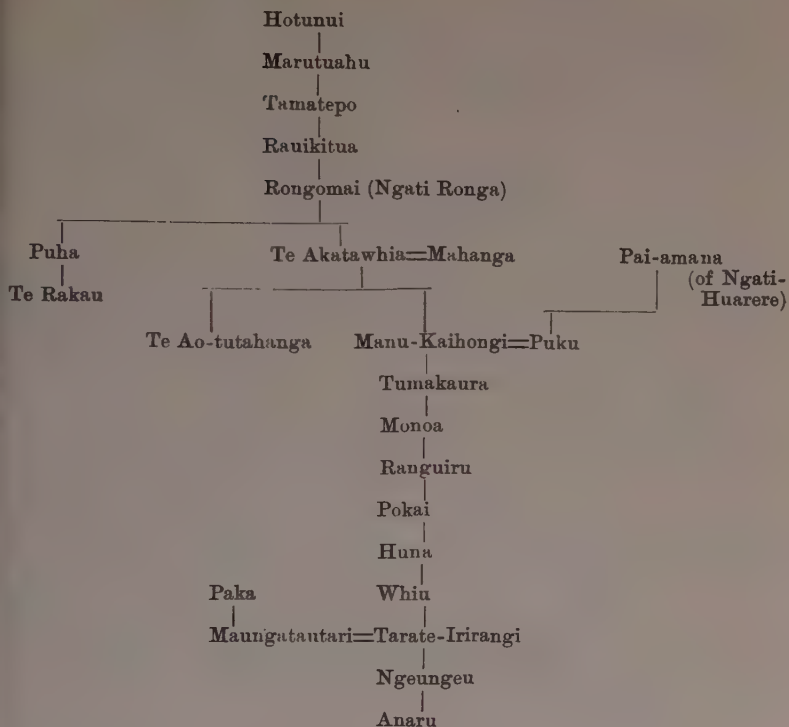
After some years residence at 'Tuki-tuki, Ngati-Huarere began to build canoes at the direction of Pai-amana. They were engaged in this work some time, when Manu asked, "For what purpose are your canoes?" Pai-amana replied, "For me are these canoes, three of them, I cannot stay here, the land is eating me, me and my people." So Manu understood they would emigrate, and asked, "Why is it that you desire to depart hence?" Pai replied, "So that I may be a *Mokai-ora* (surviving person of humble rank), I go and seek our people Te Kapotai<sup>5</sup> in the Far North."

In due course the three canoes were completed and Pai-amana departed to the North, where they joined the Kapotai tribe. Kapotai and Huarere were both descendants of Tama-te-Kapua.

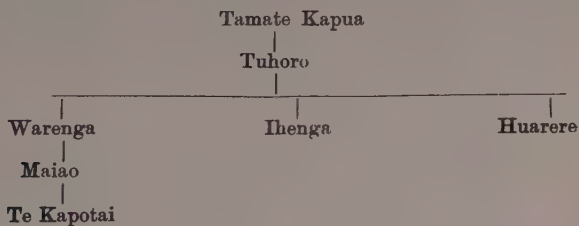
But some of them returned to visit us, and some of our people went also to them; and so on by intermarriages we, the descendants of Te Aka-tawhai, maintained our relations with those people of Huarere and Te Kapotai. And so it was that Patu-one forbade his *hapu* to attack the Ngati-tai *pa* at Pakihi and Maraetai when Ngapuhi came hither.

(5.) *Te Kapotai*—A tribe in the Hokianga and Bay of Island district, so called after Te Kapotai, a grandson of Warena, an elder brother of Huarere (see Journal VI., Supplement, "The Peopling of the North," p. 31), see Whakapapa at foot hereof.

ANARU MAKUIHARA'S WHAKAPAPA.



WHAKAPAPA OF TE KAPOTAI.



# AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

## WELLINGTON MEETING.

JANUARY 11th to 16th, 1923.

THE Wellington meeting of the Association opened on Thursday, January 11th, 1923. The delegates representing the Polynesian Society were Messrs. Elsdon Best and W. H. Skinner. The office-bearers of section F (Ethnology) were:—President: Captain G. A. Pitt-Rivers. Vice-Presidents: Messrs. Elsdon Best and H. D. Skinner. Hon. Secretary: Dr. P. H. Buck. Committee: The above office-bearers and Mr. J. C. Andersen.

The following papers were read:—Presidential address, by Captain G. A. Pitt-Rivers. "The Moa-hunters of Canterbury and Otago," by H. D. Skinner. "Racial Types in Polynesia," by Louis R. Sullivan, read by the Hon. Secretary. "Independent Evolution in String Games," by J. C. Andersen. "Canoe-building Tools of Tasman Bay," by F. V. Knapp. "The Economic Revolution in the Pacific," by G. H. Scholefield. "Australian Aboriginal Burial Customs," by Sir Baldwin Spencer. "The Evolution of Maori Weaving," by Dr. P. H. Buck. "The Physiographic Sense of the Maori," by J. Cowan, read by the Hon. Secretary. "Polynesian Migrations shown by Names of Plants, etc." by F. W. Christian. "The Maori Gravel Soil of Waimea West, Nelson," by T. Rigg and A. J. Bruce.

In addition to these sectional papers, a public lecture, illustrated by films, was delivered by Sir Baldwin Spencer in the Town Hall, his subject being "Stone Age Man in Australia." Dr. Scholefield's paper was read before a joint session of the sections of Economics and Ethnology. It provoked a lively discussion which revealed considerable divergence in point of view between economists and ethnologists. Mr. J. MacDonald, of the Dominion Museum, displayed a number of films illustrating Maori life and technology. On Tuesday afternoon the President initiated a discussion on the decline and extinction of certain races in the Pacific.

The following resolutions were adopted by Section F;—

1. "That this section, impressed with the prospect of the approaching disappearance of suitable fields for the ethnographic investigation of primitive peoples, and bearing in mind the inestimable value of such fields for the science of anthropology, which benefits primitive and civilised people alike, records its opinion that urgent representation should be made to the Governments of Australia and New Zealand in order that steps may be taken without delay to segregate and thereby make available for future investigation certain selected areas within their Pacific dependencies still remaining unaffected by the influences, cultural and commercial, of European civilisation."

2. "That in view of the extinction of many of the native races in the Bismarck Archipelago and other parts of the Australian and New Zealand dependencies, and of the rapid and unchecked decline now being witnessed in many of the remaining ones, this section is impressed with the urgent need for

instituting an immediate inquiry in order to determine the causal factors of this decline, which have not as yet been satisfactorily diagnosed.

3. "That in order to give effect to the above first and second resolutions, one or more competent committees of inquiry be constituted, assisted, and empowered to make all necessary investigations; and that with this object in view it will be necessary to institute new methods of recording annually certain information on the vital statistics of primitive races within the areas of control. In order to carry out this work that a committee consisting of the following be appointed, with power to add to their numbers:—Messrs. H. D. Skinner, J. C. Andersen, Dr. Buck, Professor R. J. A. Berry, Sir Baldwyn Spencer and Captain Pitt-Rivers.

4. "That this section is of the opinion that a committee constituted under the terms of the above resolution shall include within its membership persons possessing qualifications in the sciences of anthropology, ethnography, psychology and medicine.

5. "That this section is of opinion that insufficient attention is paid to the study of the sciences of anthropology and ethnology in all their branches in the Universities of Australia and New Zealand. They are further of the opinion that no person should be appointed to those departments of the Civil Services that administer subject races within the Dominions of Australia and New Zealand unless they possess adequate training in those sciences."

The following resolutions were also passed by the Section:—

1. "That representations be made to the Government to provide fire-proof and adequate accommodation for the valuable collections now housed in the Dominion Museum.

2. "That this section records its appreciation of the fact that the New Zealand Government has actively encouraged, and is still assisting in the collection and preservation of Maori ethnological data, including songs, customs, etc., as exemplified in the slides and cinema pictures shown during this congress. These records of a culture that is rapidly changing are of extreme value to ethnologists not only of New Zealand, but throughout the world."

Opportunity was taken during the session to discuss the present position and future policy of the Polynesian Society, the principal points discussed being the appointment of Associate Editors for the Journal, and the provision of a greater number of illustrations.

## THE SOUTH SEA ISLANDERS.

"The Belief in Immortality and the Worship of the Dead." By Sir J. G. Frazer, Vol. II., "Polynesia." (Macmillan, 18/- net.)

**T**HIS work is reviewed at some length in "The Times Literary Supplement" (London) for December 21st, 1922.

In the opening paragraph it is stated that "The first volume of this series studied the belief in immortality and the worship of the dead amongst the Australian aborigines. In a successor it is proposed to continue the theme as it exhibits itself among the Micronesians and Indonesians." In the present volume the lecture form is discarded for fuller accuracy and detail. There is a general similarity in the beliefs of these South Sea Islanders, but it has been found more advantageous, despite any possible sameness and repetition, to consider in turn New Zealand, the Friendly Islands, the Samoan Islands, the Hervey Islands, the Society Islands, the Marquesas Islands, and Hawaii, and to describe the creed of each group separately.

After touching upon various phases of Polynesian religion, laws, social observances, etc., dealt with by Sir J. G. Frazer, the review concludes, "There are powerful incentives—affection and reverence—to the instructive belief in the continued existence of the dead." The minds of most, Sir James goes on to say, revolt from conclusions derogatory to what they deem the dignity of human nature. Can the busy brain, the glowing imagination, and all aspiration end in a handful of dust? The Tongans and the Society Islanders had at least something to teach, he assures us. Like the Hebrew Prophets, they made no appeal to rewards and punishments postponed to another life. . . . But elsewhere he adds that the religious systems of these islanders in general were obviously marked with "absurdity, superstition, and vice." And in brief, and by way of summary for the time being. ". . . the notions which the Polynesians entertained on this subject cannot but strike a civilized European as childish, while the customs which they based on them must appear to him in great part foolish, even where they were not barbarous and cruel. How far such childish notions and foolish customs tend to confirm or refute the wide spread, almost universal, belief in the survival of the human soul after death, is a question which I must leave my readers to answer for themselves."





## NOTES AND QUERIES.

### [326] Easter Island and Maori Head-dresses.

In "Folk-lore," Vol. XXVII. (1917), p. 356 *et seqq.*, appeared an article by Mr. Henry Balfour entitled "Some Ethnological Suggestions in regard to Easter Island." One of Mr. Balfour's suggestions is that the red "crowns" on the heads of the stone statues represent an ancient method of dressing the hair, similar to that recently followed in some parts of the Western Pacific, and that "a red tufa was selected in order to conform with the practice, common enough in Melanesia, of bleaching the hair to a reddish colour with lime, or of coating it with red ochre." In Vol. XXXI. (December) the late Dr W. H. R. Rivers discussed this suggestion and advanced the view that the "crowns" represent hats such as were worn in the Banks Islands and Santa Maria. This theory did not convince Mr. Balfour, who (Vol. XXXII., p. 70) challenged Dr. Rivers to publish figures of Melanesian symbolic hats which exhibit the characteristic features of the Easter Island "crowns." In Vol. XXXIII., pp. 296 *et seqq.*, Mr. H. D. Skinner pointed out that cylindrical hats were worn in New Caledonia and had been depicted by Hodge in the official account of Cook's second voyage. He also drew attention to what he considered to be a closely related head-dress on Maori *tekoteko* from the Rotorua district (Dom. Mus. Bulletin 1, fig. W). As the subject of Maori head-dresses has thus become of theoretical interest the following notes on the subject may be of interest. Head-dresses are sometimes shown on other carvings than *tekoteko*, e.g., on the interior carvings of *whare* (*poupou*), and on the upright slabs (*amo*) at the lower, outer ends of bargeboards (*maihi*). In some figures, carved within the last forty or fifty years, there is a ridiculous resemblance to the "belltopper" hat. This is of course due to modern influences, but cylindrical head-dresses formed one of several ancient types. The rim across the forehead in carvings is known as the *pave*, a kind of band formerly worn on ceremonial occasions. These *pave* were, and still are, sometimes elaborately woven in *taniko* design, though other examples are plain. The hatlike prolongation upwards is the hair-dressing. This particular form of ceremonial hair-dressing was called *pave tiki*, which may be freely translated as "bandaged high up." There seems to have been much ritual connected with the dressing of the hair on such special occasions as a chief's entry into a village as a visitor, or his meeting a party of enemy chieftains in the capacity of ambassador. The *pave tiki* is characteristic of the whole of the North Island. I have seen it in Kaipara, Whangarei, Hauraki, Waikato and Kawhia districts. In carvings the *pave tiki* seems to be strictly limited to the figures of male ancestors, from which we may conclude that it was not appropriate to women. In one of the plates of La Perouse's atlas one of these figures is shown.

GEO. GRAHAM.

### [327] Maori Carved Bowls.

Figure 2 of the illustrations of the article on this subject in "J.P.S." Vol. XXXI., p. 182, is remarkably like the work of a recently deceased Arawa artist. Te Kira Makai, of Ohinemutu. He was one of the few carvers who introduced

the dog into his work, but though he carved many *kumete* I do not recollect one similar to Figure 2. Such a bowl would be used in offering food to an important guest, perhaps dog-flesh itself. It is probable that the bowl mentioned by Meade was a larger one, known as *paka*—a specimen was recently sold at auction in Auckland. The type figured in Mr. Skinner's article would probably be called *oko*. *Kumete* designates a bowl in which rare-bits were kept, from which the *oko* might be replenished. I have seen shellfish served up after being immersed in water heated with stones from a fire, the water being contained in a large block of wood hollowed out like a trough. Such a bowl was called *kohua*, a word which has given rise to much literary warfare. In Sutton's journal ("N.Z. Colonist," 16/9/'42) occurs the following: "Skirting the northern extremity of the lake (Roto-a-ira) we arrived at a small miserable settlement . . . Their mode of boiling the fish was rather primitive. A large trough was hollowed out of a block of wood, into which, being half full of water, the fish were emptied and, by immersing a quantity of red hot stones, speedily cooked, forming a soft thick fish soup, very rich."

GEO. GRAHAM.

[Mr. H. D. Skinner writes: "I am glad Mr. Graham supports my suggestion of an Arawa origin for these bowls. When it is remembered that the type occurs elsewhere in the Pacific it is strange that it should have so limited a distribution in New Zealand. Figure 2 was received by the Bankfield Museum in the 'forties, and so cannot have been carved by Te Kira Makai."]

### [328] Maori Hermaphrodites, Albinoism, etc.

On the singular and interesting subject of bi-sexualism I do not remember to have seen yet any mention in the Journal.

Fifty years ago our elders were induced to sell the Takahue Block (North Auckland), and we repaired to Rawene (Hokianga) to complete the sale. My personal knowledge of hermaphroditism is limited to the one living example, which I saw there. I repeat, "which I saw"; for I and my companions each paid a sixpence, to actually see. The example was about nine years of age, healthy, and was clad—as were most Maori boys and girls of the period—in a single garment of dungaree. In general appearance, the example was more girl than boy; more female than male. The example told us that there was another such, at Mangamuka, only a few miles away. They were referred to as "wahine-whakatane," or, female-partly-male. Finally, I was told that both died within two or three years.

During the intervening half-century, as no other instance had ever crossed my path, I had quite forgotten about it. A fortnight ago, in Wellington, I met an old and elderly friend, Neha Kipa (of Tarerereari, Fitzroy, New Plymouth). During a chat about old-people and old times; I asked Neha whether he had ever seen an hermaphrodite. He said: "Yes; I knew one such. She was an elderly woman (*kuia*). She came here from Wharekauri (Chatham Islands). She died here. She had quite a beard, a masculine voice, dressed as a woman, and associated with woman. She never married; and told her female companions that she possessed both organs. Her name was 'Tikera.'"

A week ago I met another old and elderly friend. This is Te Mana (of Picton, who is known as Tanerau, or Dan. Love). He survives his wife, Te Amo; daughter of the late Hon. Wi Tako Ngatata, M.L.C. I asked him whether he knew of an authoritative case of hermaphroditism. He said: "Yes. I knew one who lived in Taranaki. Her name was 'Tikera.'" When I remarked that Neha Kipa had already told me of that example, he said: "Yes. It is quite correct; she was bi-sexual."

When the chat turned upon albinism (*korakorako*) Neha Kipa said quite confidently: "O, that is the result of an union between a fairy (*patu-pai-arehe*) and an ordinary woman." Such is the confidence which superstition gives.

Perhaps others of the Journal members or readers can add something—Polynesian—to the subject.

HARE HONGI.

### [329] Tawhiti.

In my note in last issue of the Polynesian Journal on Mr. Elsdon Best's paper on Whiro, in the preceding number of that publication, I said that Tawhiti on the East Coast may have been called after the canoe said to have brought the Polynesian Navigator Whiro (or Ironui-ma-oata, so named from the night of the moon on which he was born, according to Eastern Pacific tradition) to New Zealand. But I had forgotten that this high hill on the East Coast, between Tokomaru and Waipiro, owes its name to a different source, it being known in full as Te Tawhiti-nui-a-Paoa (Paoa's great snare). This Paoa was an ancient ancestor of the East Coast tribes, from whom the "Big River" in Poverty Bay is named Wai-o-Paoa. According to the local legend "there were giants in those days," and one monstrous being, named Rongokako, when he travelled up the East Coast from Turanga (Poverty Bay) used to spring from point to point with tremendous strides, so the redoubtable Paoa laid a snare on the hill in question in order to catch him, but failed, and the giant leaped along the uneven tenor of his way, uncaught. As a proof of the truth of this marvellous feat, there is one footprint to be seen, of this doughty Rongokako, on the *pupu* rocks near Whangaroa named the Tapuae (footprint) Rocks between Pari-nui-te-ra (Gable End Foreland) and Tualine Point, and another similar imprint on the rocks at Horoera around the East Cape. It is not stated whether he left any other "footprints on the sands of time," but if he did they have been long ago washed away by the sea.

J. T. LARGE.

### [330] Mummification Among the Maoris.

In the "Auckland Star" (10/2/23), Captain Gilbert Mair refers to a recent case of mummification. "I think it was in the late 'fifties when Rangitukehu's comely daughter died very suddenly, leaving the Pahipato overwhelmed with sorrow. In honour of their chief and as an act of self-abnegation, happily rare though fully in accord with Maori custom, they, after expending their food, cattle, and pigs at numerous *tangis*, burned all their comfortable houses. The only tribal asset remaining was a sum of three hundred sovereigns. This, it was decided, should be expended in purchasing several hundred yards of the best silk procurable. . . . The body of their Kahurangi (garment of heaven—a name applied to a beloved female child) had been embalmed by smoking over fires of acrid green herbs to absorb the pyroligneous acid and vegetable oils, then enfolded in rare mats, the weeping women bringing their rarest heirlooms and placing them on the body to be finally rolled up in several hundred yards of costly silk. It was too heavy to be carried to the summit of Putaukaki (2,900 feet) and placed within the portals of the Gates of Heaven (Te Tatau o te Rangi); so it was deposited in a curious mass of rocks at the foot, named Te Niho te Kiore (the Rat's Tooth), and there it lay till the early 'seventies when Rangitukehu, or as he was henceforth called Te Wharewera (the burnt houses), asked me to accompany his younger brother Matutaera to 'The Rat's Tooth,' as it was rumoured that vandal pakehas had rifled it. We went and happily found the roll intact. Torrential rains had made a deep well-like place into which we lowered the mortal remains with our tether ropes. Then we rolled in big stones and broke down the earth, completely covering up all trace, and so the Kahurangi of the tribe may rest undisturbed by sacrilegious hands till the last trump sounds. 'Takoto mai ra, e hine!'"

## [331] Maori "God-sticks" (Whakapakoko rakau).

In New Zealand Journal of Science and Technology (V., No. 3, pp. 168-72) Mr. H. D. Skinner figures and describes a set of these articles from the Wanganui district now in the Cambridge University Museum, and refers to other sets and single examples. The Cambridge set represent Maru, Kahukura, and Hukere. The following notes supplement the information in Mr. Skinner's paper. The objects in question are *aria*—representations of the *atua*, or deity, and in this sense they are the medium (*mua*) by which the *atua* was invoked and through which he made manifest his desires. The ceremony of *mua* has been described in several works, e.g., White, A. H. M., Vol. III. Though these tribal gods were not idols they nevertheless acquired much *mana*, and hence were very carefully guarded. Mr. Skinner is right in stating that they appear to have been much more common in the west and south-west of the North Island than elsewhere, but I once saw a very decayed specimen found in a cave at Mangere (near Auckland), which was taken to England by Kerry-Nicholls. A set of these *aria* were the property of the Ngati-Whakaue tribe at Mokoia Island (Rotorua) when that place was captured by Nga Puhi. They took these objects—four in number—and destroyed one of them called Itu-paoa, then and there, probably hoping thereby to annihilate the *mana* of the Arawas. This *aria*, Itu-paoa, diverged greatly from the ordinary type, and consisted of a figurette woven of human hair, roughly in the form of a head and tapering downwards to a point. The hair was plaited on a wooden rod as base—such is the rather indefinite description that has been handed down. The other three figures, whose names I do not now remember, were taken away by Nga Puhi. I do not think they were ever returned, as were other tribal heirlooms in after years. Hukere (also Hukere-nui) was a deity connected with the scraping of bones and their deposition in tribal ossuaries. Mr. Skinner, though unaware of this, has drawn attention to the resemblance between the Wanganui *aria* of Hukere and the carving of one of the skull boxes in the Auckland Museum and it appears probable that the likeness is not accidental. Te Whatarau tells me that the place-name Hukere-nui has reference to the ossuaries of his tribe. Secondary interment of this kind has now quite ceased, though when a block of land is being sold and there exist on it any tribal cemeteries, the bones are still removed to the old caverns wrapped up in rugs and shawls obtained in local stores. From this it is probable that the cult of the *aria* was not exclusively West Coast custom. I found such a figure in the Kaipara many years ago, with the peg-like end, but without the lashing, owing no doubt to decay. The gods Rehua and Te Ngauhau are known to have been similarly invoked by the ancient Waiohau tribes of Tamaki (Auckland).

GEO. GRAHAM.





## PROCEEDINGS.

### POLYNESIAN SOCIETY.

A MEETING of the Council was held on the 30th January, 1923, immediately at the conclusion of the Annual General Meeting, when there were present: Messrs. W. H. Skinner (in the chair), R. H. Rockel, Capt. Wm. Waller and C. W. Waterston.

The minutes of last meeting were read and confirmed. It was resolved that the question of extending the bookshelves to meet the growing demands for book-space in the library, be left in the hands of Messrs. Skinner and Waterston, with power to act.

Mr. Rockel raised the question of arranging a series of addresses for the coming winter, in connection with the aims of the Society. It was agreed that such a course was desirable, and an effort will be made to carry out the suggestion.

The following new members were elected:—

Mr. John Ormsby, Otorohanga. Nominated by Mr. J. C. Adams.

Mr. F. N. Whitcombe, New Plymouth. Nominated by Mr. W. H. Skinner.

Mr. F. V. Knapp, Alfred Street, Nelson. Nominated by Mr. W. H. Skinner.

A meeting of the Council was held in the Library room on Wednesday, 21st March, 1923, at 4 p.m. Present: Messrs. Skinner, chairman, Rockel, Waller and White. The minutes of last meeting were read and confirmed. It was resolved that the donation of £10 towards the funds of the Society, received from Mrs. T. M. Hocken, Dunedin, be placed to the credit of the "Memoir Fund," and that Mrs. Hocken be thanked for her gift. With reference to correspondence received from the Australian National Research Council, the Secretary was instructed to thank them for the invitation for delegates of the Polynesian Society to attend the Pan-Pacific Congress to be held in Sydney in August next, and to state that steps will be taken to have representatives appointed. The question of selecting such representatives to be left in the hands of the President and Chairman of Council with power to act.

The Editor of Journal reported that after conferring with the President of the Society, it had been decided to appoint the following as Associate Editors, Mr. Elsdon Best, F.N.Z.Inst., Archdeacon Herbert Williams, M.A., Hon. T. N. Ngata, M.P., Dr. P. H. Buck, D.S.O., etc., and H. D. Skinner, B.A.

Notice of Motion was given by Mr. Rockel, that the offices of Joint Hon. Secretary and Treasurer be divided, and that a separate Hon. Secretary and Hon. Treasurer be substituted.

New Members.—The following were elected:—

Mr. Walter W. Jones, Tauranga. Proposed by Mr. J. C. Adams.

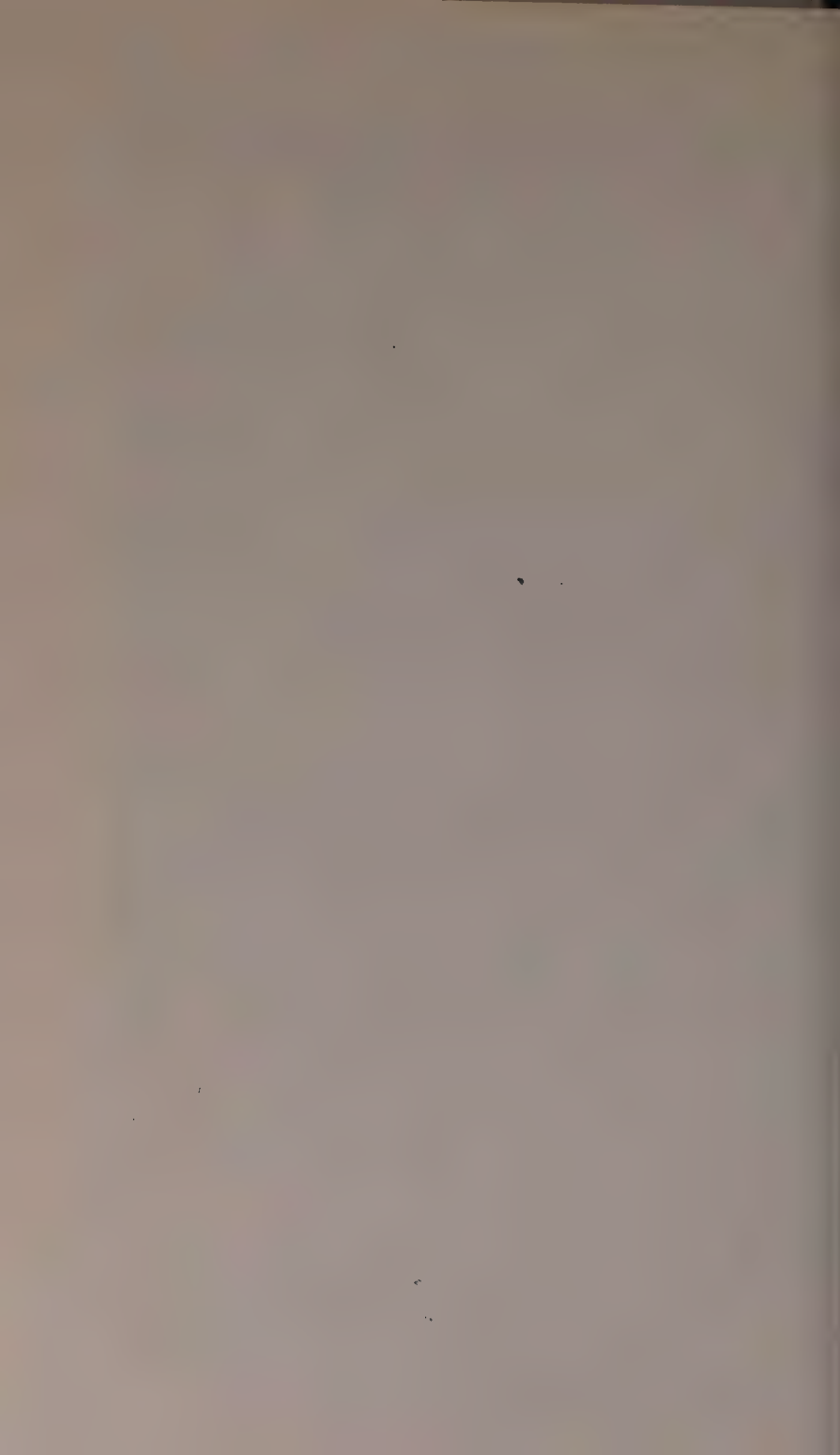
Dr. F. A. Bett, Nile Street, Nelson. Proposed by Mr. F. V. Knapp.

Dr. Hardy, Bishop Museum, Honolulu. Proposed by the President, Mr. Best.

Mr. David Teviotdale, Palmerston South. Proposed by Mr. H. D. Skinner.

Accounts were passed for payment.





# MAORI PERSONIFICATIONS.

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## ANTHROPOGENY, SOLAR MYTHS AND PHALLIC SYMBOLISM: AS EXEMPLIFIED IN THE DEMIURGIC CONCEPTS OF TANE AND TIKI.

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BY ELSDON BEST.

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### TANE AND TIKI.

THEIR TRUE POSITION IN MAORI MYTHOLOGY.

(Written in 1917.)

THERE are two aspects of many Maori myths, more particularly the superior myths pertaining to the origin of man and the spirit world wherein sojourn the souls of the dead. Of these two versions one is that conserved by the high class *tohunga*, who may be termed priests, and taught by them to a few carefully selected youths in a *tapu* school of learning, as a means of passing such knowledge on to future generations. Such versions would never be recited among the commoners, or ordinary people of a clan, who knew nothing of them; they were learned and transmitted orally, generation after generation, by these specially trained record keepers. The knowledge of them was confined to the chieftain class.

The other version was that known to all the people and freely discussed by them. These may be called the common fireside stories, or, as the Maori puts it, stories told by the oven side, i.e., by cooking fires, in the vicinity of which no *tapu* matter might be related. Such common versions often differed widely from what may be termed the sacerdotal or classical version. The repositories of the high class lore listened to the people repeating the popular and incorrect versions, without, apparently, making any attempt to correct them. Like many other priesthoods, the *tohunga maori* were intensely conservative and kept all knowledge to themselves as much as possible.

The ordinary fireside account of Tane is that he was one of the offspring of Rangi and Papa, the Sky Parent and the Earth Mother. He, as a leader of the rebellious portion of that offspring, forced up the heavens, so that he and his brethren might have room to move about, and propped up the sky in the position in which we now see it. He produced trees and birds; he is the parent, guardian, or tutelary deity of forests. He is said to have been the progenitor of man, but this phase of his activities is interfered with by the common version of the myth concerning Tiki, who is said to have made the first man. Tane has many names, and, in fireside story, these are said to apply to different beings, which is denied by the higher teachings. All these manifestations are recited as the acts of an individual, and bear the impress of a somewhat puerile myth. Little can be gathered from them as to the true position of Tane, or the meaning of the actions and names assigned to him. In regard to the sacerdotal version of the myth, it is believed by the writer that a close study of the same will tend to throw much light on its meaning, such a light as Tane alone could emit. For we have, in Tane and his acts, an old, old sun myth of barbaric man.

## THE INNER MEANING OF THE TIKI MYTH.

### ASIATIC CONCEPTS IN PHALLIC SYMBOLISM.

We have now to deal with one of the most interesting of Maori myths, one of a phallic and anthropogenic nature. In some versions of the myth Tiki appears as a demiurgic being, the maker of the first man. In others he himself is said to have been the first man, created by Tane in one version, by Tu in another. It is quite in keeping with the double aspect of native myths that two members of the primal offspring, children of Rangi and Papa, Sky and Earth, should be credited with the creation of man.

We have another account that states that Tiki was the *atua* (supernormal being, god) who made the first man. The Tuhoe tribe make Tiki a supernatural dweller in the Po; he was not of this world, but he took to wife one Ea, a female of this world, the *ao*

*marama*, the world of light and life. Their offspring was Kurawaka, a female, who was taken to wife by Tane, and became the mother of Hine-titama (The Dawn Maid; personified form of dawn). This by no means agrees with other tribal versions.

We are also told that Tane made Tiki, or, as another version has it, that Tane made Tiki-auaha; also that the first woman was made as a companion for Tiki-auaha, or Tiki the creator. In the first volume of White's "Ancient History of the Maori," we find the statement "Man was formed by Tiki," and also "The first man was formed by Tiki-ahua." And again, "Then Tane bethought him of fashioning a woman as a companion for Tiki," the name of the woman being Io-wahine. Again, in a Whanganui note given by Mr. White, we are told that Tiki was the first person in the world. Various tribal accounts state that it was Tiki that made man, or was the first man. It is clear that but few natives knew the real meaning of the Tiki myth. In Volume III. of the above work we find the following:—"Tiki was the ancestor of Tane . . . there was no woman for him, so one was made by mixing up earth."

Two other names of Tiki are Tiki-mumura and Tiki-hahana, the qualifying terms carrying the sense of reddened, glowing, heated. Another such title is Tiki-torokaha, strong or virile Tiki. The application of these terms will be seen anon. Yet another is Tiki-tohua, which carries a sense of conception, as Tiki-ahua conveys that of quickening.

A passage in Volume II. of White's work states that Tiki was formed by Io, the Supreme Being.

We have yet another version of the origin of Tiki, as given in Volume XIV of "The Journal of the Polynesian Society," pp. 125, 126, where it is shown that Tu, one of the offspring of the Sky Parent and Earth Mother, formed an image or figure of earth and endowed it with life; this being was Tiki. Further remarks made by the author of that paper, Colonel Gudgeon, show that he has been the only writer to note the real meaning of the Tiki myth, prior to the time when clear evidence came to hand. He remarks that he could never get any satisfactory reply from old natives as to who Tiki took to wife to produce man, and concludes that Tiki must represent the life principle, a shrewd conclusion to arrive at.

Two terms used to denote the *ure tane*, or male organ of generation, are *koromatua* and *tangata matua*, both of which carry the sense of "parent" or "elder." They are euphemistic or semi-sacerdotal expressions, but the true sacerdotal term for the organ was *tiki*, and Tiki is the personified form thereof. Hence the term *tiki-auwaha*, synonymous with *ure auwaha*, employed to denote a fornicator. Tiki-auaha is also said to be one of the names of Tiki, as denoting one of his, or its, qualities. See *ante*. Herein we see the origin of

the common version of the myth, viz., that Tiki was the first man, a version never taught by the superior priesthood, but only by lower grade teachers. The expression *Te Aitanga a Tiki*, (the progeny or descendants of 'Tiki) is an old term for mankind. *Te kai a Tiki* (the food of 'Tiki) is a phrase denoting sexual connection. These terms have a bearing on our subject.

A Taranaki version of the myth of Tiki, as related to the Rev. T. G. Hammond, has an Oriental aspect. The account was obtained from a member of the Ngati-Ruanui tribe; it is as follows:—

Tiki-te-po-mua was the first man. He found himself surrounded by all the living creatures of earth, and long sought a companion among them, but without success. Sorely he felt his lonely condition. One day he found himself beside a pool of clear water, and was delighted to see in it a being of his own form. He endeavoured to seize and secure the image, but the reflection eluded him. He long sought to secure a mate such as he had seen, but without avail. One day, during the act of micturition, a pit he had formed in the earth became filled, and, to his delight, he saw therein the being he had so long sought. He quickly procured earth and deposited it in the pit in order to confine the creature he had seen. That reflection developed into a female, a woman, who came forth and became the companion of Tiki.

Tiki and the woman born of reflection dwelt together for some time. Then, one day when the woman was bathing, an eel came round her body, and, with his tail, so excited the woman that there was awakened in her the sexual desire. She then went to seek Tiki, and succeeded in exciting him to an equal extent, hence there came to them the Knowledge. This act was viewed as a most serious *hara* (misdemeanour, sin), hence Tiki, knowing that the eel had caused the woman to lead him astray, resolved to take vengeance. He therefore slew the eel, and cut him into six pieces. From those six pieces sprang the six varieties of eels known to man.

It is an interesting fact that the Maori folk apply two very peculiar expressions to the tail of an eel. Those terms are *tara puremu* and *hiku rekareka*. The first of these is an epithet often applied to adulterous women, the second means "tickling tail." Here, in a remote isle at the edge of the world, we encounter the Asiatic concept of the phallic eel. Let us examine this Asiatic-Polynesian parallel.

The phallic eel is prominent in Oriental myth, and both eel and snake are connected with fertility. Ila, the eel god of Chaldea, is the Ira and Indra, the eel god of India, whose symbol is a linga surmounted by a lunar crescent. This is appropriate, for the moon is closely connected with fertility in Asiatic and Polynesian myth. In Persia, however, Indra is the serpent, and so we have here, in



this Maori story, the old, old myth of the primal sin, as held in far off Babylonia or Sumeria. Here is the true, original version of the story of Eve and the serpent, of which a very euphemistic version has reached Europe. The forbidden fruit was tasted by the woman, she who had been tempted by Ira or Indra, the eel of India and the snake of Persia. She was the first to sin, though Tiki seems to have been a willing second sinner. The trail of this myth is seen in Maori and old world mythologies; it has affected the status and conditions of woman in many lands for many centuries. In the dark, sad centuries that lie behind, Christian priests taught that woman is but a vile creature sent by the devil into the world to tempt man. We are still learning and teaching very ancient pagan myths. How did the Maori acquire this myth anent the phallic eel? Did he carry it eastward from the land of Uru, his original homeland, to the hot land of Irihia, where the food product termed *ari* was known, thence away to the rising sun and the sea of ten thousand isles?

Now a more common version of the above myth makes Maui the hero, the husband of the woman who was tempted by Tuna, the eel—and here is the story thereof:—

Hina, the wife of Maui was interfered with by Tuna, the eel, and so Maui decided to slay him. His method of doing so was a singular one. He arranged a series of nine skids over which Tuna crawled as Maui recited a charm that runs as follows:—

“Mata Tuna ki te rango tuatahi,  
Ko Ira i, ko Ira i, ko Ira i, tō rō wai.”

This was recited nine times, once for each skid (*rango*). This charm was communicated to me by old Pakauwera of Ngati-Kuia, who repeated it many times, and was very insistent that I should record it correctly. He certainly did not render the closing words as *toro ai*, as has been suggested, but as given above, *tō rō wai*, i.e., Ira belonging to the water. This statement that it is Ira of the waters occurs three times in each secondary line. The Maori uses the word *tuna*, the ordinary name of the eel in vernacular speech, to denote the personified form of eels, glibly termed the eel god by us. The Maori has preserved the myth of the phallic eel; has he also preserved the name of the Indian eel god Ira in the above couplet? We know of no ordinary meaning of this word *ira* that can be applied in this case. Hewitt tells us that Ila-putra, the son of Ila or Ira was a snake god, whose image was a linga with a lunar crescent on its head. Again, in Christian's work on the Caroline Islands, he writes as follows:—  
“The Mortlock Islanders call the eel Tiki-tol, and use it for the equivalent of the serpent in the garden of Eden.” Here we have the phallic eel in the North Pacific taking the place of the phallic serpent as it does in New Zealand. As to the name Tiki-tol, this I

would be *r* in Maori; is it Tiki-toro (*toro* = to creep, to stretch forth, to extend)? Inasmuch as *tiki* is the old sacerdotal Polynesian name for the linga or phallus, which was the emblem of Ira the eel god of India, we have here an interesting series of coincidences; if they are such. Truly it looks like a wide distribution of myths from a central source in pre-historic times.

Hina of the above myth is apparently Hina the personified form of the moon, who is the tutelary being of women, and presides over childbirth. Do the nine "skids" arranged by Maui represent the nine months of gestation? The full name of Hina is Hine-te-iwa-iwa, the word *iwa* meaning "nine." Hina is usually said to be the sister of Maui, in Maori myth; in Polynesia she appears as his mother, as his sister, as wife of Tiki, as wife of Tane. She is connected with fish and fishermen, and the heavens are "the bright land of Sina" (Hina).

In Tahitian myth Tiki was the first man. At Mangaia, Tuna makes love to Hina with curious results, and Hina is the moon. As Hina, Ina and Sina she represents the fructifying moon all over Polynesia, even as Sin, the moon god, did in Babylonia.

Tiki was invoked in childbirth among our Maori folk, as shown in Shortlands' "Maori Religion and Mythology." At the Chatham Islands Tiki is said to have presided over certain peculiar rites pertaining to women.

In the MS. collection of Sir George Grey is a Maori story of Tiki under the name of Tiki-tawhito-ariki. The word *tawhito* was applied to the organs of generation by the Maori. It is employed to denote "origin, beginning, &c.," in divers dialects of Polynesia, and as far west as the Santa Cruz Group. The above story speaks of Tiki as the originator of fornication and adultery. It is a long and very strange story of how Tiki took his own sister to wife. Shortland collected a version of the Tiki myth in which Tiki takes Hine-titama to wife. This confusion has doubtless arisen from the fact that Tiki and Tane really represent the same thing, the male procreative element.

In the myth anent the fertilising acts of Tane we see that he takes to wife many forms of the female element, and so produces many things, principally the different species of trees. One sentence reads—"I tu te tiki o Tane ki a Hine-tupari-maunga, a ka puta mai āna uri ki waho." ("The *tiki* of Tane was directed against Hine-tupari-maunga, and his progeny came forth.") This female was the Mountain Maid, the personified form of cliffs, ranges and mountains. She brought forth Parawhenua-nūa, who is the personified form of the waters of the earth, the springs, rivulets and streams we see issuing forth from the form of the Mountain Maid. The latter also gave birth to Tuamatua, who took Takoto-wai (Lying in water) to

wife and begat Rakahore and Rangahua (personified form of rock). These begat all forms of stones, gravel and sand.

In the myth of Tane and the Earth Formed Maid, the former is spoken of as Tane the Parent, for, by his union with that fair damosel, was produced the *ira tungata*, human life, mortal man. In the account of this union we have further clear proof as to what Tiki personifies. The following sentence in that account cannot be misunderstood:—"Ka tukua ki a Tane-matua kia hikaiu a Tiki-ahua ki roto i te puta o Hine-ahu-one." Nothing could be clearer than this statement as to what Tiki represents, and no person who examines the evidence can remain in doubt. In the ritual recited during the act, we note the following:—"Kia hahana i a Maunene i roto o Karihi katitohe, e Tiki - - e - - i." After this comes the explanation:—"Ko tenei karakia he mea i te aroaro o Hine kia kaha te hiahia mai ki tona hoariri, ki a Tiki-ahua." Other proofs of a similar nature are contained in these myths, and by them the true meaning of the personification known as Tiki is fixed beyond the reach of cavil or disproof.

In another formula recited over Tane and Hine-ahu-one occur the words:—

"Tiki, ka riri Tiki  
Tiki, ka reka Tiki."

Another one contains the following:—

"Tane-matua e!  
I ahuahua mai Tiki-ahua, mai Tiki-nui, Tiki-roa  
Ahua mai kia toro te ihiihi.

\* \* \* \*

Te akaaka taikaha o Tiki . . .  
Tenei to ara ko te pu o Hine-one  
E Tiki - - e - - i."

Then follows an account of the death of Tiki, i.e., the enfeeblement of the *tiki*:—"I konei ka toia atu e Karihi, ka toia atu ki runga i te paepae o Mauhi, o Maukati patu ai a Tiki-nui, a Tiki-roa. Ka mate i konei a Tiki." After this who shall deny that the Maori possesses a veritable genius for personification.

In certain ritual recited over a person suffering from illness occurs the following:—

"E Tiki! E Pani E!  
Kia ora tenei tangata."

(O Tiki! O Pani! May this person recover.) Herein Tiki and Pani are called upon to succour the sufferer and restore him to health. Throughout Maori ritual we note the curious belief that the organs of generation are the saviours of human life in dire extremities. Of this belief some very curious illustrations might be given. Yet, on

the other hand, the female organ, the *tawhito*, is destructive to human life under certain conditions, a belief equivalent to that of the *sakti* of the Hindoo.

The Rev. R. Taylor tells us in his "Te Ika a Maui," that Tiki made man, but, like other writers, did not grasp the meaning of the myth. His remark that the *heitiki* pendant is an image or remembrance of Tiki, was a shrewd one, although he followed the wrong train of thought. His further remark that the new born infant is called a *potiki* because it is a gift of Tiki from the Po or Hades, is an unhappy one, as also is his reference to *putiki*. The Maori folk of Chatham Islands have preserved a knowledge of Tiki. See "Journal of the Polynesian Society," Vol. III., pp. 127-128.

## THE TIKI NECK PENDANT.

### ITS ORIGIN AND PURPORT.

There is another item of interest connected with the word *tiki*. We know that in Eastern Polynesia it was applied to images made in human form, as it also was in New Zealand, but here more particularly applied to cenotaphs. The Maori of New Zealand also applied it to the grotesque neck pendant made in human form, with head awry and bowed legs. It is also styled *heitiki* and *tautiki*, but the two prefixes *hei* and *tau* merely imply "pendant," the latter (*tau*) being a generic term, while *hei* signifies a suspension from the neck. This curious and unlovely figure was in most cases fashioned from nephrite, the most highly prized of all stones in Maoriland. Properly this pendant was worn only by women, and there has been much speculation as to the import of the *tiki*. It may be stated that, according to Maori myth, the first *tiki* was made for Hina-te-iwaiwa, and she is the goddess who presides over childbirth. The *tiki* is nothing less than a phallic symbol. Though named after the phallus, it is not fashioned in the form thereof, but in the cramped, doubled up form of the human embryo. It was worn by women because it was believed to possess a fertilising effect, a fructifying influence. Thus we see the connection between Tiki, the maker of the first man; Tiki, the personified form of the male organ; *tiki*, the sacerdotal name of the same, and the *tiki* pendant worn by women. The latter was made in the form of the human embryo in the womb in order to connect the active agent with the passive agent and its fruit, thus following the same lines of reasoning as induced the Maori to practice sympathetic magic to such a pronounced extent.

In Vol. XIX. of the "Transactions of the New Zealand Institute," Mr. Blyth, in a paper on the "Whence of the Maori," makes some remarks on the *heitiki* and Tiki, but had not grasped the meaning of



the latter, though he recognises the former as a representation of the human foetus.

It is clear that the *tiki* neck pendant or *heitiki* represents a very ancient myth and ancient cult. The ideas connected with it are such as are evolved by folk of a somewhat primitive form of culture, but endowed with the vivid imagination and faith in inanimate mediums often found among such people. No writer on the Maori has, apparently, made a close study of this matter, in one case only has any writer made a near approach to the true explanation of the Tiki myth and the *tiki* pendant. Others are wide of the mark, and their writings show that they have made no searching enquiry. Unfortunately some of these quaint theories have appeared in scientific works, a fact that is much to be deplored. The evidence referred to above is on record in printed works known to all students of Maori lore. The translation is certainly of a euphemistic nature, but the keen student, the genuine enquirer, does not utilise translations when the matter is also given in the original. To understand the Maori, his mentality and his concepts, his beliefs, superstitions and usages, it is absolutely necessary to know his language.

References to Tiki are not infrequent in Maori song. The following is an extract from a *waiata mate kanehe*, a form of love song :—

‘ Nga ure a Tiki, te hahana a Tiki  
Te mumura a Tiki-torokaha  
Ka rawe ra au i konei.”

(The organs of Tiki, the redness of Tiki, the glow of virile Tiki, etc.)

The small wooden images, in human form utilised as temporary shrines or abiding places for the spirit gods, were called *tiki* in some districts. They were so called because they were fashioned in human form, we are told. Any image made in human form may be styled a *tiki*, because, as we are told in popular myth, that was the name of the first person created by the gods. The superior teachings recognise that Tiki was no real person.

#### VARIOUS NAMES ASSIGNED TO TIKI.

Tiki-auaha.	Tiki the creator.
Tiki-auwaha.	Tiki the meddler.
Tiki te po mua.	
Tiki-ahua or Tiki i ahua.	
Tiki-tohua.	Signifies the conceiver.
Tiki-hahana	Reddened, glowing, or heated Tiki.
Tiki-mumura }	
Tiki-torokaha.	Virile Tiki.
Tiki i-apoa.	



## VARIOUS NAMES ASSIGNED TO TIKI.

Tiki-whakaringaringa.	Tiki the arm former
Tiki-whakawaewae.	Tiki the leg former
Tiki-tawhito-ariki.	
Tiki te pou roto.	
Tiki-haohao.	
Tiki-ahupapa.	
Tiki-nui.	Great Tiki.
Tiki-roa.	Long Tiki.
Tiki-whaoa.	Inserted Tiki.
Tiki-whatai.	Projecting Tiki.

## TANE.

We must now proceed with the story of Tane. This is the name of one of the principal gods of the Polynesian pantheon. He belongs to the departmental gods, who, after the supreme being Io, may be said to have been the principal gods of the Maori of New Zealand and his kindred in far spread Polynesia. The four chief deities of this great island system may be said to have been Tane, Tu, Tangaroa, and Rongo, all of whom were children of the primal parents Rangi and Papa, the Sky Parent and the Earth Mother. Tane held a high position in the Society Group, as he did in New Zealand, while Rongo (Lono) seems to have been viewed as superior to him in the Hawaiian Isles. At some islands Tangaroa was looked upon as being the most important. In New Zealand Tane was held to have been the progenitor of man, of trees, and of birds, as also of many other things, some of which have been referred to. He here occupied a more important position than did Tu, who represents war, and Rongo, who personifies peace and the arts of peace, such as agriculture.

It is well to bear in mind that the word *tane*, in the vernacular speech means "male," also "husband."

Tane was one of the seventy offspring of Rangi and Papa. The heavens are alluded to as the house or domain of Tane. He was not the first born, for Uru-te-ngangana held that position. According to the Tuhoe version the heavenly offspring were born in batches, but they speak of the various names of Tane as belonging to different individuals, which is quite wrong according to what may be termed the higher teachings.

A peculiarity of the numerous offspring was that they were all males, not one female was born of the Earth Mother. The reason for this seems to have been that any female born of the primal parents must necessarily be a super-natural being, as all the sons were, and the offspring of gods and goddesses must also be of a

supernatural nature. Thus, in order to produce mortal man it was necessary to discover a female of common origin, a non-supernatural woman.

Now, when these children of the Earth Mother were born, earth and sky were not separated as they now are, but lay close together, the Sky Parent embracing the Earth Mother. Light was not, darkness prevailed, no glimmer of light reached the children of Papa, and this condition of primal darkness is known as the Po. This period of darkness was divided into twelve lesser periods or Po, and during the first six of these occurred the conception of the Earth Mother, and the attainment of form by her offspring. The second series of six Po represents the period of labour of the Earth Mother, during which her young sought to pass out into the world. In the vernacular *po* signifies night. The names of the first six Po are:—

The Po	The period of darkness.
The Po nui	The great Po.
The Po roa	The long Po.
The Po uriuri	The dark Po.
The Po kerekere	The intensely dark Po.
The Po tiwha	The gloom laden Po.

The second series are styled:—

The Po te kitea	Signifies unseen Po.
The Po tangotango	Signifies changing.
The Po whawha	Signifies feeling or questing.
The Po namunamu ki taiao	Refers to the narrow passage to this world.
The Po tahuri atu	Signifies turning, movement.
The Po tahuri mai ki taiao	Signifies turning to this world.

These last two Po (nights or periods) represent the efforts made by the offspring of Papa to seek a passage into this world. Upon this series is based the period of labour with women of this world.

Much confusion has arisen over the frequent use of this term Po in Maori myth. As *po* = night, it is always taken as meaning darkness. Applied to the spirit world, it is translated as “realm of darkness” or some similar expression. The writer contends that the word as used in myth, does not necessarily mean “eternal night,” or even darkness, but is often employed in order to express the unknown, such is the darkness it often implies, the darkness of ignorance, a state of things man cannot grasp or comprehend. In like manner do we use such expressions as “all is dark before me.”

In scanning Maori myths we note that, not only is the term Po applied to the spirit world to which the soul of man goes at death, but it is also applied to the period of time prior to the appearance of

man on the earth, or before the offspring of the primal parents escaped from the embrace of the Earth Mother. The names pertaining to that period have already been given.

Albeit the words *uriuri*, *kerekere*, and *tiwha* imply darkness, yet these expressions seem to refer to the unknown conditions of these periods rather than ordinary darkness. The offspring of Rangi and Papa were in darkness because they were within the body of the Earth Mother; as soon as they came forth, they found light in the world, not the bright light of Taue, but a subdued light.

We also note that the spirit world is known as the Po, the underworld to which the soul of man goes after death. The expressions Po tangotango, Po whawha and Po tiwha are applied to this land of spirits, apparently a land of gloom, according to some of the expressions applied to it. And yet the teachings of the Maori tend to show that it is by no means a gloomy realm, but a desirable place where the troubles of this world are unknown. Observe the advice of the denizens of the spirit world to Mātāora, the only man who ever returned from that realm:—"O Mātāora! Abandon the upper world, the home of evil. All the denizens of that world eventually come here. They are slain and perish through evil ways, and (their spirits) all come hither. Let us remain below; separate the upper world and its evil ways from the lower world and its goodly life. Observe, the upper world is as a Po with its acts and customs, a thing apart from the lower world, which is a realm of light and life, with goodly usages."

Hence it is that, of all souls of the dead, even from the time of Hine-ahu-one down to our own time, not one has ever returned to dwell in the upper world. And the saying of old is, "*Ko te Po tē hokia a taiao*." The Po from which none return to this world.

We cannot associate this spirit world with the ideas of gloom or darkness. It is the Po because it is the Unknown to us denizens of the upper world, a shadowy realm, unseen, unattainable by living man.

The first phase of light experienced by the children of Papa was that emitted by Moko-huruhuru (glow worm), which is known as the *maramatanga tuaiti* (dim light), and as the *maramatanga namunamu ki taiao* (dim light of the passage to this world), that feeble light is still seen, as emitted by the descendants of Moko-huruhuru. It may be as well to tabulate the different phases of Light, as explained in these myths:—

The *maramatanga tuaiti*

Dim light of glow worm.

The *maramatanga taruaitu*

The feeble light existing between Rangi and Papa prior to their separation.

The maramatanga kakarauri	The light that obtained in space after the separation of Rangi and Papa; known also as the maramatangarukurukuotaiao, and as Tahora nui a Ruatau.
The maramatanga atarau	The phase of light known after Papa was turned over and Rangi was firmly established on high.
The maramatanga aono nui	The kind of light that prevails in winter.
The maramatanga tuarea	Cloudless light.
The maramatanga taiahoaho	The bright light of summer, the light experienced when the heavenly bodies were fixed. Also known as the ao marama o taiao.

But we are anticipating the higher phases of light, and must return to the birth of Tane and his brethren. When they appeared in the world they thought it a fine place, but soon discovered that it was occupied by Maeke, Kunawiri, Wero-i-te-ninihi, and others (personified forms of cold), hence they clung close to the sides of the Earth Mother. Whiro, who was one of the last born, was wrath with Tane for conducting them out to this cold region.

### THE SEPARATION OF RANGI AND PAPA.

One of the first acts performed by the liberated children was the separation of the Sky Father and Earth Mother in order to gain space to move about, so cramped were they in the confined area. This forcible separation, in which Tane took the leading part, is often spoken of as a rebellion of the children against their parents. Tane, Tu, Tangaroa, Tawhiri-matea, and others performed this act, while Whiro and some others objected, and would have nothing to do with it. The story, which is a long one, explains how four poles were procured, and used as props to support the heavens when they had been thrust upward by Tane. The wise men of old were careful to explain that these four poles or props were the four winds, and were named after them:—

Toko Huru-mawake  
Toko Huru-rangi  
Toko Huru-atea  
Toko Huru-nuku.

In these names *toko* signifies a pole or prop, while the other words

are names of the personified forms of the four winds, north, south, east and west. The word *toko* also means a ray, as of light.

This separation of the primal parents was by no means an easy task, for they clung to each other closely, and so it was found necessary to cut off their arms ere they could be forced apart. Their blood ran and soaked into the body of the Earth Mother, whence her descendants take it in the form of red ochre. When a certain gleam of redness is seen in the heavens, that is caused by the blood of Rangi that flowed from his grievous wounds. The *karakia* (charm) that was employed in this separation has served as the basis of all divorce ritual among the human descendants of Rangi and Papa.

We are told that the two props supporting the head and legs of Rangi became bent by the weight, hence they received the secondary names of Rakau-tuke and Rakau-koke. The following sayings in regard to this unfilial act of Tane have endured unto this day :—

- “ Ko nga rangi i roherohea e Tane : ”      “ The heavens to which  
Tane set bounds.”
- “ Ko nga rangi tuitui a Tane : ”      “ The inaccessible heavens  
of Tane.”
- “ Ko nga rangi tokorau a Tane : ”      “ The separated heavens of  
Tane.”

In regard to the four winds, it was these winds that brought vigour and the breath of life to man, animals, fish, birds, vegetation and soils ; they were vitalising agents.

The following are other proper names for the four winds, which are the offspring of Huru-te-arangi and Tonganui-kaea :—

Hurunuku-atea	North wind.
Pārāwera-nui	South wind.
Tahu-mawake-nui	East wind.
Tahu-makaka-nui	West wind.

### ORIGIN OF THE SUN.

Several different progenitors of the sun are given in Maori myth, probably these are tribal differences—

Uru te ngangana = Hine te ahuru

Te Ra Kura  
(The red sun)

Te Marama i whanake  
(The waxing moon)

In this version Uru, elder brother of Tane, and Hine te ahuru beget the Ra-kura (honorific name of the sun) and the Marama-i-whanake (waxing moon).

Uru = Hine-turama  
|  
The Stars.



Then Uru and Hine-turama produce the stars. Lady Turama is not identified, but apparently represents some form of light, being the daughter of Tane. *Rama* signifies a torch; *tirama*, to light with a torch; *turama*, to give light to, also illuminated. Tirama-roa is the name of some luminous phenomenon, possibly a comet.

Another version gives us—

Rangi-nui (Sky Parent).

Whiro (Personification of Darkness).

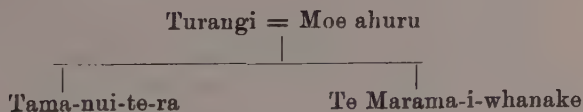
Tongatonga = Hine-te-ahuru

|  
Sun, moon and stars.

A good native authority has said that Turangi and Uru-te-ngangana were names applied to one being, and we are told that another name of Tongatonga was Tu-rangi, also that Hine-te-ahuru had another name, that of Moe-ahuru; she is also alluded to as Te Ahuru. One version gives Rona as one of the offspring of the above twain. The common story concerning Rona is that she or he, is an *atua whiro* (evil supernatural being) who attacks the moon because it destroys food supplies, but the higher grade of teachers denied this. Rona is the guide, or conductor of the moon (*marama*), even as Tatai-arorangi is the guide of the sun. The full name of Rona is Rona-whakamau-tai, or Rona the Tide Controller.

One version gives Haronga as the male parent of the sun, and Tangotango as the mother. The latter appears to be a variant form of Tongatonga and is probably the correct form. Pio of Ngati-Awa explained that Tangotango is a name for the Milky Way, also known as Te Ikaroa. Haronga appears to hold much the same position as does Varuna of Indian myth, the god of the summer solstice.

While *ra* is the common name for the sun, we find that *ra kura* is apparently a honorific term for it, *kura* conveying the sense of redness or gleaming. Another term for the sun is the *ra tuoi*. The only meaning we know attached to *tuoi* is that of "thin, lean." Another important name for the sun is Tama-nui-te-ra, and this is a personified form of that orb. Thus we have his origin given in this way:—



We see that the sun is given as the first born, and the moon as the second born; after these came the stars, who are alluded to as *ra iririki* (little suns), and as being the *taina* or younger relatives of the two firstborn. The offspring of Rangi and Papa were somewhat fearful of these heavenly bodies, because they possessed eyes only

and no bodies, heads, or limbs. They are sometimes alluded to as the Whanau Marama (Shining Offspring or Light Family). The sun is mentioned as a male, and has two wives, Hine-raumati (Summer Maid) and Hine-takurua (Winter Maid). In Moriori myth the three daughters of the sun are—

Hine-ata	Morning Maid.
Hine-aotea	Day Maid, or Daylight Maid.
Hine-ahiahi	Evening Maid.

The moon has also several names, the common term being *marama*, while *mārama* means light. *Marama-i-whanake* denotes the waxing moon. *Marama-taiāhoaho* implies the full moon. *Marama-rou* and *marama-titaha* apparently denote other phases. The sex of the moon is seldom referred to save in the myth of Hina, who is apparently the personified form of the moon, and a female. In full her name is Hina-keha, or Pale Hina, while Hina-uri seems to personify the darkened moon, during the *hinapouri* or lightless phase. In some myths the moon is clearly referred to as a male being.

Te Ikaroa (the Milky Way is said to be a younger brother of Whiro, and to have been the guardian of the little suns or stars. All these Children of Light, prior to their being placed on the breast of the Sky Parent, resided at Maunga-nui (great mountain), the home of Tu-rangi and Moe-ahuru. Here the sun lived in his own abode, known as Maire-kura, for he was a *tapu* being. The moon and Rona lived with their parents in the "house" Maire-hau. These were fine places in which the inmates roamed about. The *plaza* where they roamed was Te One i Oroku (The Strand at Oroku). Here dwelt the Whanau marama, the Children of Light. Here dwelt Te Ra (The Sun), Te Marama (The Moon), Kopu (Venus), Autahi (Canopus), Matariki (Pleiades), Whanui (Vega), Pare-arau (one of the planets), Puanga (Rigel), Kautu, Whakaahu, Takurua-ruru, Tautoru, Wero i te ninihi, Wero i te kokota, Poutu-te-rangi, Rehua, and many, many more, the little suns are a multitude, hence the saying:—"Ko te pukai mata kirikiri a Turangi"; and also "Te apa whatu a Te Ahuru."

### TANE AS THE LIGHT BRINGER.

THE CHILDREN OF LIGHT ARE ARRANGED ON THE BREAST OF RANGI,  
THE SKY PARENT.

The gloom of primal light was trying to the offspring of Rangi and Papa, hence Tane resolved to introduce brighter luminaries as a boon to his brethren. In the Tuhoe version of this myth it is stated that Tane-nui-a-rangi (Great Tane, offspring of Rangi) went to Tane-te-waiora and demanded the Whanau Marama wherewith to

adorn the breast of the Sky Parent. We know that all these Tane names really applied to one and the same being, and it will appear later that Tane-te-waiora was his title when spoken of as being the custodian of Te Waiora a Tane, which is a figurative or emblematical term for Light, the Light of the Sun.

The Tuhoe folk say that Tane first demanded Hine-titama (the Dawn Maiden) but could not obtain her. Again, Kewa is said to have assisted him in procuring the Light Givers. Tane went to Maunga-nui and obtained them. He placed in a basket all these adornments of the house of Tane-te-waiora, as they were termed, and that basket seems to be represented by Te Ikaroa (Milky Way). One only of the younger folk, or little suns, was left hanging outside the basket, viz., Autahi (Canopus), which still remains outside it. The Tuhoe version says, "*Ko Te Mangoron tonu taua kete*" ("The Milky Way itself is that basket"). Then the basket was placed on Uruao, the *waka atua* or supernatural canoe of Tama-rereti, and taken to the heavens, where all the Whanau Marama or luminous ones were arranged on the body of the Sky Parent. For Tane had said—"The breast of our parent, Rangi, is blank; it shall be adorned with the Whanau Marama." The sun was placed on the breast of Rangi, the moon on his stomach, while the *ra ririki* or little suns (stars) were arranged on his head, body and legs. Tane said to Te Ikaroa, "You shall abide in the midst of our young ones, lest they quarrel, jostle each other, and fall." Now we know that such quarrels do occur, because when a *matakokiri* (meteor) is seen, that is one of the younger ones falling. Te Ikaroa and Tamarereti, theirs is the task to prevent the children falling and breaking their heads, or being drowned in the ocean.

Thus it was that Tane illuminated the Sky Parent, and so we became possessed of the light of the *ao-turoa* (this world), and that of the *po tiwhatiwha* (period of darkness) as given by the moon. This was not effected at first, for all the Light Giving Ones moved at the same time, so that Papa, the Earth Mother, became dried up and dusty, so fierce was the heat of the sun, for at this period the body of Papa was naked and unprotected. Hence Tane rearranged the heavenly bodies and their movements, so that the sun should move across the breast of Rangi in its own time, and that the moon and Milky Way and stars should follow behind him. This is how day and night were separated; day was assigned to the *ra kura*, and night to the *marama hua* (moon), to Te Ikaroa, and to their *taina* (younger relatives). Now it was that a proper period of time for sleep was acquired, and Rona was appointed guardian of the *marama whiro* (moon). We now see how it was that Tane brought Light to the World.

(To be continued.)

# THE ORNAMENTS AND DECORATIVE CARVING OF OUTRIGGER CANOES ON THE NORTH COAST OF NETHERLANDS NEW GUINEA.

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IN *Man*, for March, 1917, Dr. C. G. Seligman figures four prow ornaments now in the Vienna Museum, which he decides must come from the coast immediately west of Humboldt's Bay, in Netherlands New Guinea. He suggests that these are archaic types of the much modified and more conventionalized prow form in use in the Massim area in S.E. British New Guinea; this suggests close racial connection between the peoples of these two localities in spite of the fact that, apparently, the coast tribes between, a distance of about 400 miles, do not use these peculiar boat ornaments.

The note is peculiarly interesting to me for, during a visit in 1918 to the Dutch area in question, I noted that canoe ornamentation differed markedly in the Humboldt's Bay region from that of Geelvink Bay, lying immediately westward. Cape D'Urville divides these two areas. In the eastern section around Humboldt's Bay, the canoes generally have birds, fishes, and human heads as the motives of the ornamentation. In the western, the motives are generally scrolls, which may have floral significance, and snakes. The outrigger canoes of the two districts also differ fundamentally in their design.

The settlement where canoe ornamentation is most lavishly employed is Wakde, on a small island lying off the coast about 120 miles west of Humboldt's Bay. The principal hamlet here and those close by are probably where the four prow pieces figured by Dr. Seligman came from. Hence I shall begin by describing the boats and spears from this island.

All the canoes have dugout hulls. Both large and small have the sides heightened by means of a wash-strake. To close the gap left at each end by the abrupt ending of this board, carefully shaped stem and stern pieces are added. These differ in the large and small canoes. In the latter the prow is carved into the form of a human head much conventionalized and quite small. (Figure 1.) Immediately behind this and at a higher level is tied one of the ornaments figured in Dr. Seligman's note; at Wakde, of those seen, all represented a parrot. One in my collection (Figure 2) shows a quite realistic parrot above, with two human faces below, provided with



noses showing the overhanging tip so characteristic of the true Papuan type.

The stern piece differs peculiarly from that at the fore end, for in addition to a terminal point carved into a very rude convention of a human head or at least into a projection showing a nose and eyes, there is immediately inwards an upwardly projecting parrot's head, stumpy and conventional (Figure 1). Between these is tied a quadrangular arrangement of four human heads with the tip of the nose extravagantly elongated as shown in figure 3.

In the larger canoes, the fixed stem piece is greatly elaborated, and instead of the bird ornament being separate, it is here incorporated with the human figure-head at the bow. The bird surmounts the head and is made in one piece with it. The several details are clearly shown in figure 4. Upon the hulls of these larger boats, incised and low relief decoration is usually profuse; much of it in great elaboration so intricate that time would not permit me to draw examples sufficiently carefully as to do full justice to the artistry and skill of their primitive creators. The line figures reproduced here from my field notes (Figures 5, 6 and 7) will convey, however, a fairly good idea of the wildness of the fancy shown. A fish-tail motive runs through and dominates all these designs. Even human and bird figures are so treated, and some I saw recalled the Sea-God picture drawn by a Melanesian somewhat in this manner which Scott-Elliot reproduces after Codrington.\* Not infrequently a pair of what appear to be evil-eye figures, male and female, are incised amidships on the outside of the hull.

The dominant fishing methods used by the fishermen of Wakde are spearing and shooting, the latter by means of bows and arrows. For large fish and turtle two heavy spears of great length and thickness are employed. The length averages twelve feet. The fore end is unusual in form, being armed with two barbed heads as shown in figure 8. The other end is highly ornamented with rich carving for a length of some two-and-a-half feet. The designs vary greatly; in one case the end of one of the pair of spears (they are not harpoons) was carved into the semblance of a nude female figure, the other being a corresponding male figure. Further up the shaft the ornament is geometrical and fanciful. In many, fishes and human heads are often combined—a fish swallowing a man is a favourite motive. One of this class is represented in figure 9. In small canoes these formidable weapons are replaced by smaller ones, still of considerable size and strength, having four very strong prongs set slightly divergent.

At the village visited on the west side of Humboldt's Bay all the canoes are ornamented in quite a different style from that in vogue at Wakde. The stern has no carved end; it terminates quite plainly.

\* *Primitive Man and his Story*, p. 388, London, 1915.



As for the fore end, the decoration is of two kinds; in the larger canoes it consists of an added piece tied on, carved to represent a curiously mixed group of fishes surmounted by a seated parrot (Figure 10); in the smaller ones the bird disappears being replaced by an object that may be a bird's head but so conventionalized as to be difficult to identify (Figure 11). Whether these are totemistic I am unable to say; I have no evidence either way.

Apart from this added prow ornament, the hull of the dugouts and the surface of the wash-strake are decorated with incised fish devices rendered in unmistakable Melanesian style, the fins elongated and elaborated to represent the pectorals of flying fishes. No two hulls are ornamented alike. The designers have a fertile and grotesque fancy and allow it to run riot freely when working out their ideas. Some employ a fanciful winged fish, repeated many times along the hull in various attitudes, others combine these into groups and some are more geometrical in their treatment but still employ the fish motive. Figure 12 represents a typical group of these quaint fishes. The red and black pigments used to outline the incised lines of the design, are most effective upon the greyish-yellow background of the naked hull.

Spears, grains, and bows and arrows are employed in fishing as at Wakde; the general forms are the same, but there is less carved work on the shafts. The ornament is restricted largely to geometrical line designs (arabesques). Near the butts of the great spear shafts a ring of cassowary feathers is often tied on. Harpooning with a line fitted with retarding floats as used so extensively in Geelvink Bay is not practised here.

In the Geelvink Bay region, which includes many large and important Papuan settlements not only on the mainland (Manokwari or Dorey) but also in Jappen and the Schouten Islands (Pom, Wooi Bay, Serui, Bosnik, etc.), the form and decoration of the outrigger canoes in use are entirely different from those of Humboldt's Bay and neighbourhood. Canoes in the former region have always numerous booms and are frequently (usually) double outriggers, the secondaries being vertical stanchions; in the latter they are *invariably* single with two booms only and with two pairs of oblique stanchions connecting the distal extremity of each boom with the float.

Large and medium sized canoes *differ greatly* in ornamental treatment. The largest sizes such as are seen at Manokwari, which always employ double outriggers, have particularly prominent decorated ends; figure 13 shows better than words can describe the construction and ornamentation of this part; it consists of two sections, a very prominent upwardly directed prow ornament, fixed in a slot in the fore end of a carved stem (or stern) piece fitted upon the end of the dugout hull. The former is cut from a plank, pierced and

carved in an exuberant scroll design. Immediately below the point is usually a hexagonally grooved, pumpkin-shaped oblong knob. The intaglio scroll work is painted alternately black and scarlet; below this the uncarved lower portion has black, red and white bands above, with a band of conventional wave pattern below. The stem piece upon which this ornament is fitted is carved from the solid, and ornamented upon each outer side with relief carving medially, margined above by a painted frieze of three rows of conventional wave pattern, worked in the three colours used upon the other parts.

The carved median line of figures represents, taken in order from before backwards, (*a*) a mamma-like boss, (*b*) a human figure crouching on his haunches with stiff tufts of hair produced by wedging small bunches of black palm fibre into holes punched over the scalp region of the head, (*c*) a tiny snake heading forwards, and (*d*) a much larger representation of another snake with head apparently trifid, looking aft; the size of the head region is much exaggerated and displays a distinct herring-bone pattern along its whole extent.

The second style of ornamentation is more prevalent, as it is used in conjunction with medium-sized canoes which are more numerous than very large ones. This type is particularly common at Woor Bay, Pom and Bosnik in Jappen and the adjacent islands. Figure 14 exhibits the chief peculiarities of this design and its differences from the one above described. In this, which appears less primitive than the other, the fore end of the dugout is fined down and considerably elongated in a horizontal direction, to give purchase for the attachment by splicing and lashing of a gracefully curved prow ornament. Instead of being vertical as in the companion design, this continues forwards and upwards the under curve of the canoe's bow. It is cut from a thin plank, the fore edge fashioned into several narrow teeth, and the body pierced in a fretwork of short scrolls arranged in parallel bands.

Behind this is the true bow piece connecting with and finishing off the wash-board fitting on either side. Unlike the corresponding parts in the largest type of canoe it is made up of separate pieces forming a box-like structure open behind. It consists of two sides, each with a forwardly directed horn-shaped projection from the upper edge (Figure 15), a transverse bulkhead at the front between these sides, and a high rudder-like ornamental part (Figures 16 and 17) fitted edgewise against and in front of the bulkhead. This last part together with the two sides are pierced with fretwork scrolls after the manner of the prow piece. The attachment of the median piece accentuates its likeness to a rudder, for the hinder edge is furnished with a pintle peg to fit over the top edge of the athwart bulkhead; the head of the pintle is fashioned to represent the conventional Papuan human face, and another but smaller head is sometimes found

at the upper fore corner of this pierced median board (Figure 16). No further decoration is usually present in Manokwari canoes of this type, but at Wooi Bay and other of the villages in the islands in Geelvink Bay, what no doubt represents the formerly universal fashion in this district still prevails; in these the projecting wing-like horn on each side is decorated with the porcelain-white shells of the egg-cowry (*ovum ovum*), suspended from the fore end and from projections on the under edge; usually a single shell is hung from each point, sometimes a bunch of two or even of three may be thus suspended. In a fully decorated canoe, a row of three shells is hung from each side projection (Figure 14). It is probable that in former days and even now during festivals this shell was and is employed more lavishly in decoration, for in one instance I saw each of the heads of the outrigger stanchions ornamented with a shell, tied on, together with a bunch of leaves.\*

In the recess in the bows provided by this ornamented structure is stowed the half basket holding the turtle harpoon line. In passing it is worthy of note that the line is fitted with wooden disc "retarders," sometimes highly ornamented with carving. In some cases they are fashioned into conventionalized representations of fishes (Figure 18), birds, and fish-tails; others, the less important ones, have incised geometrical patterns on one side, sometimes inlaid with fragments of broken Chinese porcelain.

From the above it is clear that the Geelvink and Humboldt's Bay canoe designs and decorations have nothing in common. The canoe form is fundamentally distinct; that of Humboldt's Bay is akin to Melanesian and Western Polynesian types, the other is related so far as concerns its usually double form with Indonesian types. Dr. Seligman has also tentatively correlated the ornament of the former with that found among the Eastern Papuo-Melanesians inhabiting the Massim area, which comprises the extreme south-eastern point of New Guinea and the neighbouring islands lying immediately to the eastward. This conclusion received conclusive confirmation from other observations which I made on the canoe type in use, and on the physical characteristics of the people of the fishing hamlets in Humboldt's Bay, and the islands of Dempta and Wakde further west.

The large sea-going outrigger canoes of this region are distinctively of the Melanesian type. The dugout hulls are long and narrow, with tumble-home sides. The well opening is further constricted to about a foot in width by the way the deep wash-strake is fitted, the upper edge inclined inwards. The outrigger frame is

\* Considerable petty trade is carried on by Chinese traders in these shells on the New Guinea coast, the chief demand appearing to be from further east; the Solomon islanders are noted for their love of the egg-cowry in their decorative schemes.

single, the booms two in number. Each is attached to the single float by four divaricate stanchions arranged in an outer and inner pair. The sharpened lower ends of these stanchion attachments are easily driven into the float which is of light soft wood; the upper ends are lashed to the boom. The largest canoe measured (Wakde) was thirty-eight feet long with booms projecting nineteen feet beyond the side on which the float is attached.

The outrigger frame is balanced on the opposite side of the canoe by a large and strongly fashioned counterpoise platform, built outboard on poles projecting at right angles to the hull to about half the length of the outrigger booms on the other side. On the largest of this type (seen at Humboldt's Bay) a well-formed boat cradle was constructed on the outer side of the platform to accommodate a small dugout canoe. Passengers and goods can also be accommodated on this outboard platform. The men of these fishing villages are generally finely built, plump or rather fleshy, and good-featured, without a trace of that harshness of countenance so frequent among pure Papuans. The men of Imbi, a little village of pile-dwellings near the western horn of Humboldt's Bay, are of specially characteristic Melanesian appearance. They are not tall as a rule, three men picked at random, being respectively 5 ft. 4.8 in., 5 ft. 8 in., and 5 ft. 2.2 in. in height. Colour a pleasing brown (a dark cinnamon tint), never black. Hair frizzly, arranged in a mop. Here as in the other fishing villages there is considerable diversity in the shape of the head, and the form of the nose; it was particularly interesting to observe that the *better-looking* and finer proportioned individuals and certainly the more intelligent men of Imbi had short heads and relatively small noses, frequently straight or nearly so, whereas the less intelligent, who however formed the majority, were characterised by longer heads and heavier noses depressed and rounded at the tip. Three of the former (those whose heights are given above) had cephalic indices 85.5, 86.8, and 84.0. The same divergence in type is seen in the other hamlets of this region, sometimes more marked in regard to the Papuan element and shows that the immigrant Melanesians have now a strong strain of Papuan blood in them; the fine features and brachycephaly of the more intelligent argues a third admixture—the Polynesian. The men of hamlets built over the water on piles are distinctly more Melanesian in physical character than those living on the land. The living huts of the former at Humboldt's Bay are circular in plan, with conical roofs, the others being rectangular in form.

The Geelvink Bay region is conspicuously different in many respects, cultural, as well as physical. Melanesian influence appears to be practically absent, its place taken but to a much less proportionate extent by Indonesian. The people generally are true Papuan in type, darker in colour, longer headed and with heavier noses (often of



the Jewish type) than the Papuo-Melanesians of the Humboldt's Bay neighbourhood, who for distinction may be termed northern Papuo-Melanesians. They are distinctly less intelligent and are often dull in expression.

Indonesian influence has impressed itself upon them in several directions, notably so in respect of the form of outrigger canoes used and in their ornamentation. Unlike the Northern Papuo-Melanesians they employ usually the double form of outrigger, exclusively characteristic of Indonesia, modified however by the retention of an extremely primitive type of float attachment consisting of vertical boom stanchions.\*

The ornamentation of these canoes already described may, perhaps, be mainly of indigenous origin, but in certain respects it bears evidence of having been influenced from the neighbouring Indonesian coast. I consider there is distinct though obscure kinship with certain forms of canoe decoration persisting in Halmaheira (Moluccas). Thus in the village of Galela on the north-east coast of Halmaheira, I have seen a modification of the Geelvink Bay stem and stern ornament, and the employment of the snake motive conspicuously in canoe decoration. A characteristic feature of the Galela outriggers is always a curious upstanding ornament carried upon the stem and stern posts. Each is fashioned from a long and narrow plank notched at the upper end in trifid fashion. This terminal portion is generally coloured black, while the flat sides are decorated with crude figures painted in black, of crosses, circles, and dots upon the naked surface of the wood. Two typical patterns are illustrated (Figure 19). These long end pieces are pegged into the stem (or stern) post in the same relative position as the elaborately pierced and carved decorative finials of the large Geelvink Bay canoes.

Many of these Galela canoes have a carved beading along the gunwale, and the artistic feeling of the builders finds outlet in the elaborate carving of the tabernacle on which the paired legs of the tripod mast are pivoted. Figure 20 reproduces a rough sketch made on the spot of one of these tabernacles together with the carved cross bar belonging to the same fitting; as will be seen, the upper surface is ornamented with a spirited carving in moderate relief of a coiled snake swallowing a fawn or other small animal. Compare this with the Geelvink Bay snake pattern on the sides of the stem piece. A further instance of the use of the snake motive was seen upon a beautifully carved paddle blade at Sorong at the extreme N.W. end of New Guinea. On this a single snake was carved in relief, at the upper end of the blade, the body short and gracefully carved, the eyes picked

\* *Vide* Hornell, J., in "The Outriggers of Indonesia," *Madras Fisheries Bulletin*, Vol. XII., No. 2. Madras, 1920.



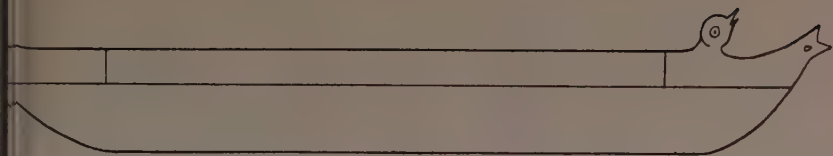


Figure 1.

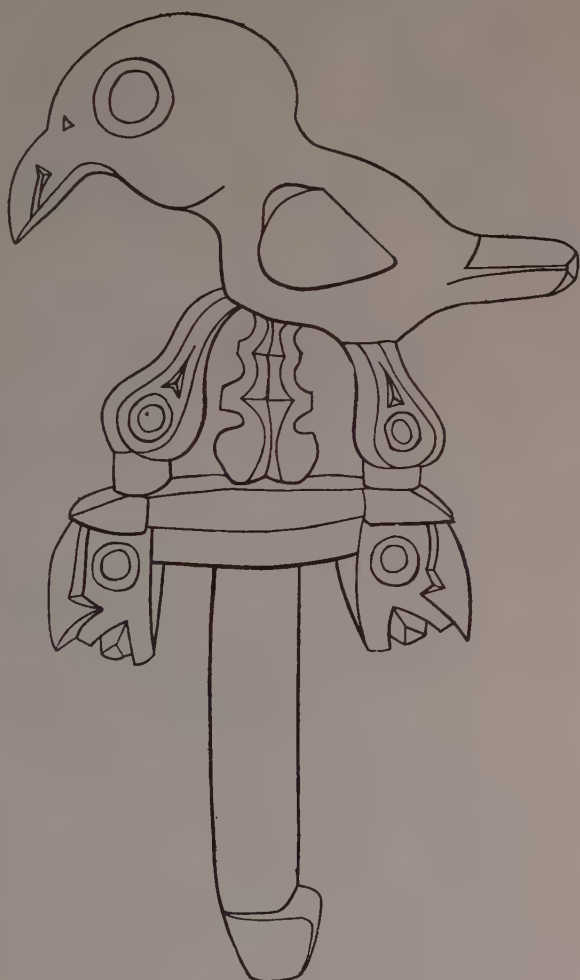


Figure 2.

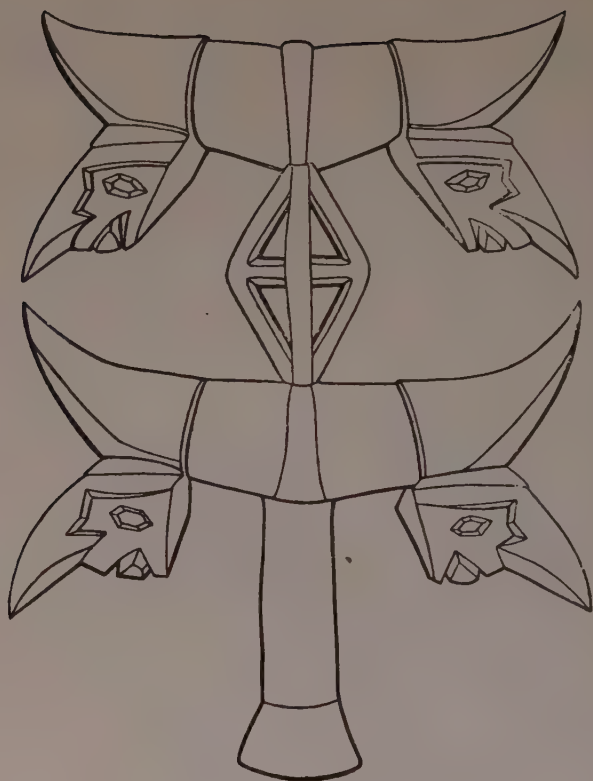


Figure 3.

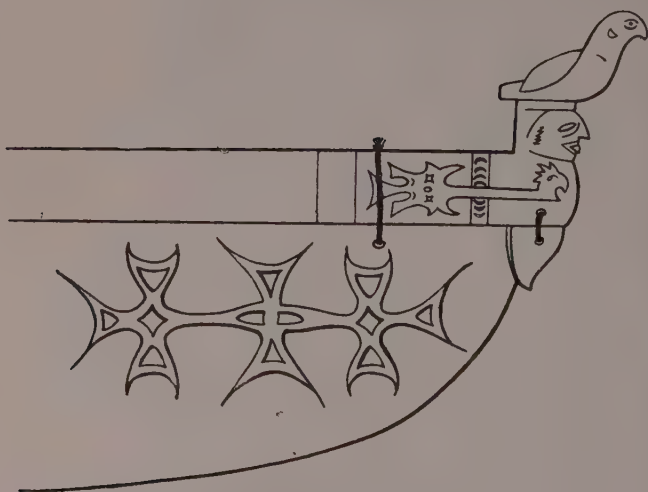


Figure 4.



Figure 5.



Figure 6.



Figure 7



Figure 8.

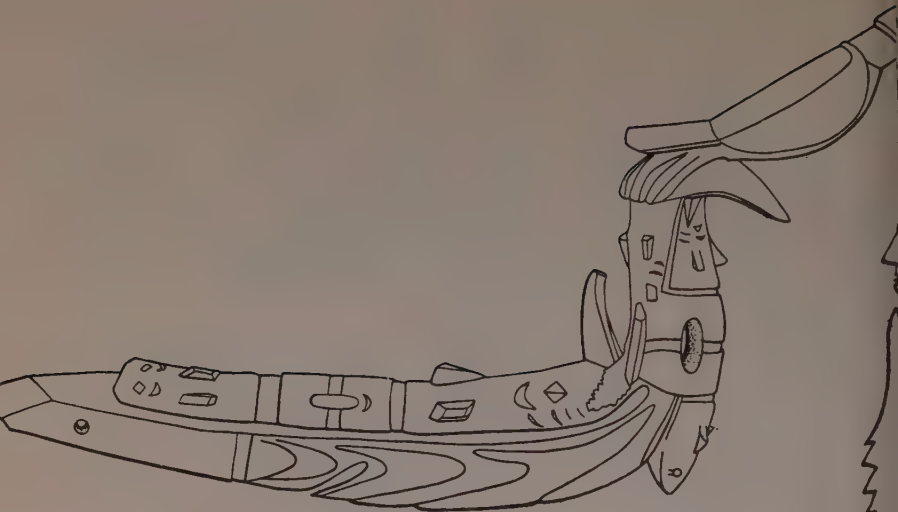


Figure 10

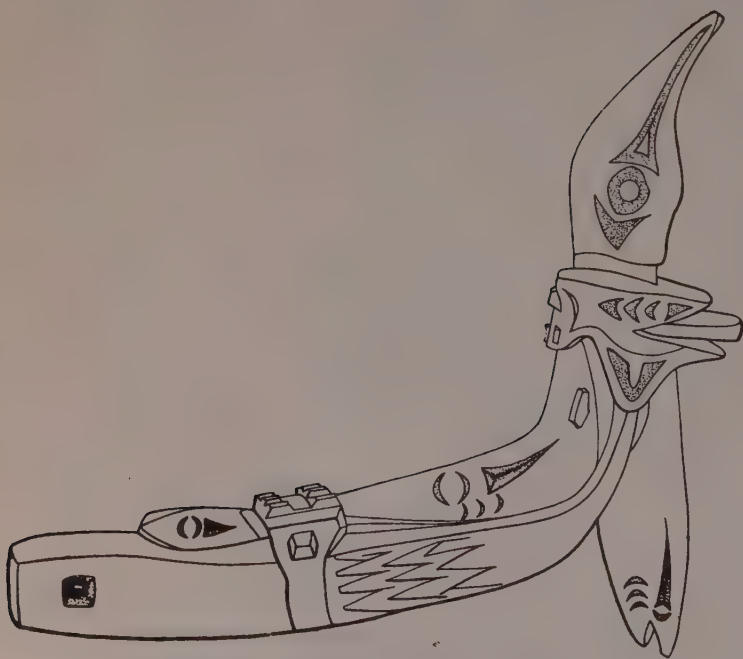


Figure 11.



Figure 12

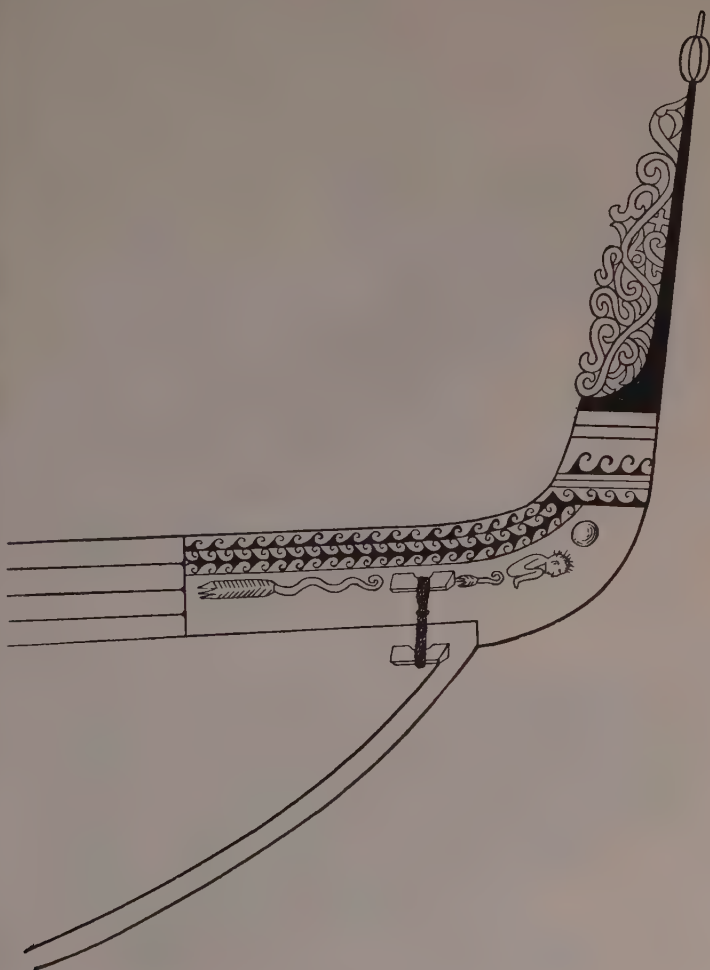


Figure 13



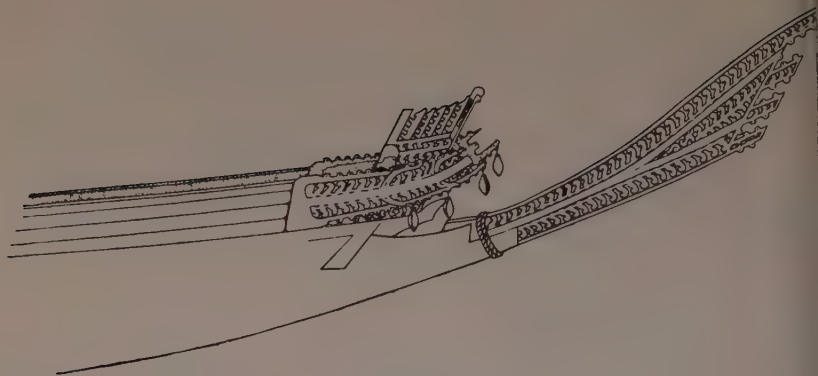


Figure 14

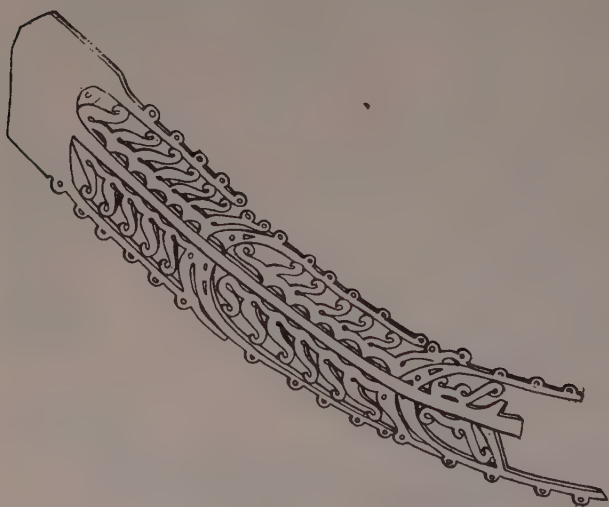


Figure 15

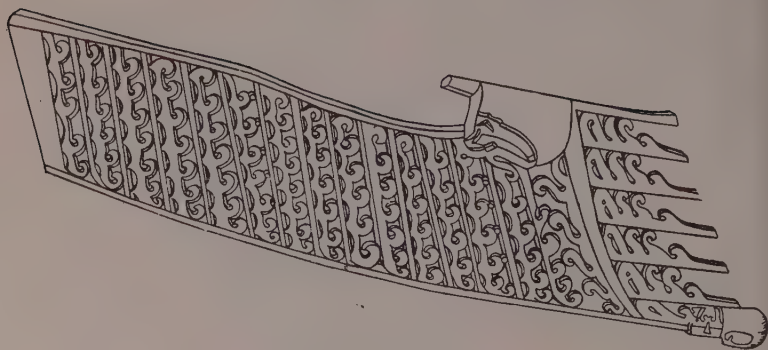


Figure 16

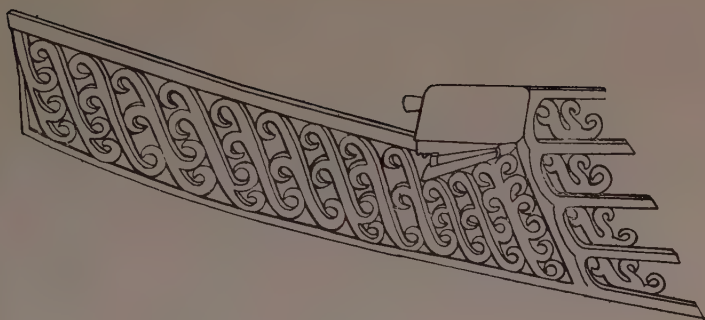


Figure 17.

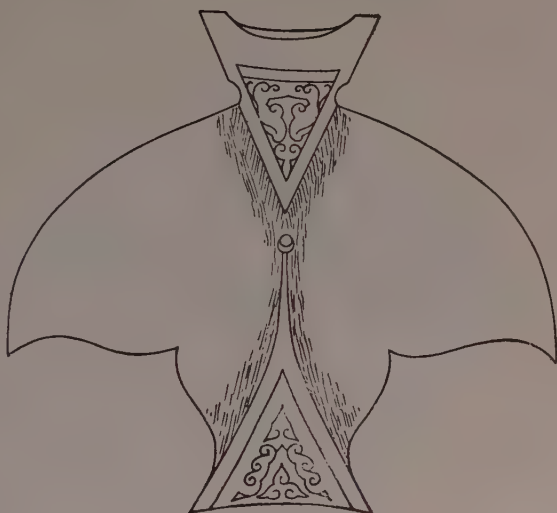


Figure 18.

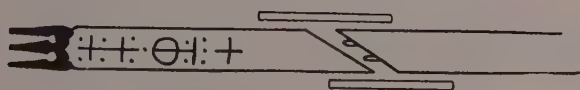
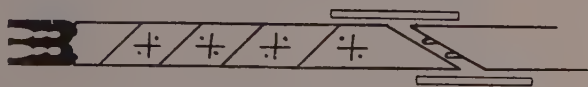


Figure 19.

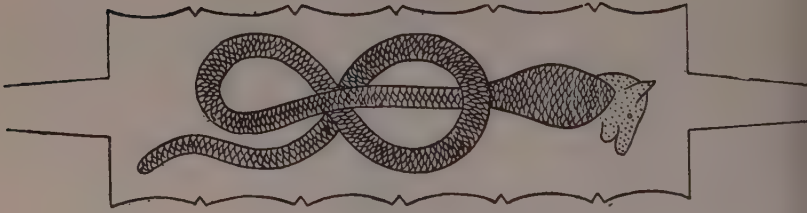
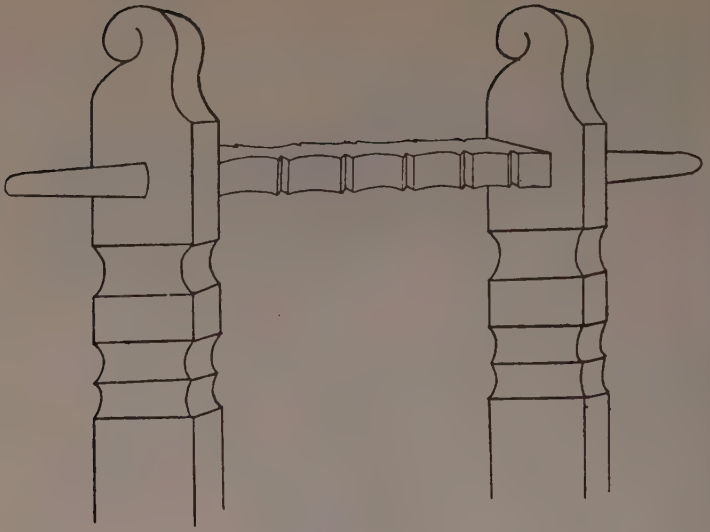


Figure 20.

out in bone or ivory. Nowhere else have I seen the snake motive employed; that of the bird, the parrot in particular, is less restricted; it is seen frequently as a bowsprit ornament upon Macassar praus and as a stem-head carving in large Hindu-owned coasting vessels in the Bombay Presidency in India.

In certain of the villages of the Schouten Islands, Indonesian blood seems traceable in a considerable number of the men. This is notably the case at Bosnik, a populous village in Wiak. Few places that I visited in this region showed a range of facial characters so diverse and wide. A few men had fine features with narrow and fairly straight nose with a well marked bridge; the majority had the typical fleshy, hooked Papuan nose, broad at the base, and often with a deep depression at the apex, the "bottle-nose" of Dampier. Between these two, were all gradations. Head shape varied, and it was noted that a broad short face was usually associated with a narrowing of the eyes, suggestive of an Indonesian admixture.

It seems certain that the main stock in this region is native Papuan, with a variable admixture of Mongoloid Indonesian and a slight strain of Melanesian. Being a border region with a long established traffic, centuries old, with the Moluccas, in Birds of Paradise, the Mongoloid strain is understandable; some admixture may also be predicated with the same Melanesian stock that has settled in the islands and bays of adjacent coastal region from Cape D'Urville to Humboldt's Bay.

The drawings which illustrate this paper are either from field sketches made on the spot, or from specimens collected by myself. For the care with which the finished drawings have been made, I have to thank my assistant, Mr. K. R. Samuel, who has skilfully reproduced all details with scrupulous accuracy.

#### DESCRIPTION OF FIGURES.

Figure 1.—Hull of dugout canoe from Wakde, Netherlands New Guinea. The outrigger attachments are omitted. The ornaments sketched in figures 2 and 3 are tied respectively at the fore and aft ends of these canoes.

Figure 2.—Prow ornament of a Wakde canoe. It is tied just behind the small figurehead at the prow. (From a specimen in the author's collection.)

Figure 3.—Stern ornament from the same canoe; it is tied between the stern post and the parrot's head seen in figure 1. Wakde. (From a specimen in the author's collection.)

Figure 4.—Fore end of a large Wakde canoe, to show the conjunction of a parrot and a human head in the formation of the figure head. Considerable incised ornament is shown on the bow of this dugout.

Figure 5.—Conventionalized human and bird figures incised on the side of a large Wakde canoe. Note the fish-tail motive introduced into the delineation of the two bird figures.

Figure 6.—Another bird figure from a Wakde canoe.

Figure 7.—A conventionalized fish seen on another Wakde canoe.

Figures 8 and 9.—Fore end and butt respectively of a very heavy double fish-spear seen at Wakde.

Figure 10.—Prow ornament from a large canoe at Humboldt's Bay. (From a specimen in the author's collection.)

Figure 11.—A similar ornament from a small canoe, Humboldt's Bay. (From a specimen in the author's collection.)

Figure 12.—Fish motive decoration incised on the hull of Humboldt's Bay dugouts.

Figure 13.—Prow ornamentation of a large Geelvink Bay double outrigger, seen at Saonek.

Figure 14.—Fore end of a double outrigger from Wooi Bay in Jappen Island, showing the long tied-on prow piece and the box-shaped fitting in the bows. The pierced sides and median piece of the "box" are shown in detail in figure 15-16. Note the Egg-cowries hung from the horns of the pierced bow pieces.

Figure 15.—One of the forwardly directed sides of the bow ornament shown in figure 14. (From a specimen in the author's collection.)

Figure 16.—Median ornament at the front of the box-like bow ornament of Geelvink Bay canoes. (From a specimen in the author's collection from Manokwari.)

Figure 17.—Another form of the ornament seen in figure 16—Manokwari. (From a specimen in the author's collection.) Note that the head of the pintle in figures 16 and 17 is fashioned to represent a human head.

Figure 18.—Retarder of a harpoon-line; it is in the form of an ox-ray (*Dicerobatis* sp.), Wooi Bay. (From a specimen in the author's collection.)

Figure 19.—Two typical prow forms from Galela, Halmaheira. The splice connecting each piece with the stem head is shown open to exhibit the method of attachment.

Figure 20.—Mast tabernacle of a Galela boat. The figure below shows the carving upon the upper surface of the tabernacle cross bar.

[Students of Maori art will recognise that in this paper Mr. Hornell has taken the first step towards solving the problem of the origin of the designs used in Maori canoe-decoration, and they will eagerly await the publication of his further researches in New Guinea, Melanesia, New Zealand, and Polynesia.—EDITOR.]



# THE RACIAL DIVERSITY OF THE POLYNESIAN PEOPLES.

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*(Read before the Australasian Association for the Advancement of Science,  
in Wellington, 1923.)*

THE relation, origin and relationships of the Polynesians have been the subject of much speculation and discussion. Earlier students of anthropology emphasized not only their uniformity in culture and language, but also used them as a standard example of a remarkable uniformity of physical type extending over a greatly diversified habitat. They are described as being almost identical in physical appearance from Hawaii to New Zealand and from Samoa to Easter Island. But the more intensive work of recent years has led to a modification of the statements maintaining a uniformity of culture and language. Several major and countless minor migrations have been hypothesized to account for differences or similarities in culture and language. In the main, these migrations have been attributed to different groups of the same race. There is, however, a growing tendency to regard the Polynesians as a mixed people. But here again a majority of the students seem to feel that the mixture has taken place outside of Polynesia and before migration into Polynesia. There has also been a great diversity of opinion as to what are the elements entering into the mixture. Melanesian, Negrito, Indonesian, Proto-Armenoid, Alpine, Malay and Australoid mixtures have been suggested as the possible causes of diversity of physical type in Polynesia. But, in the main, these explanations must be regarded as suggestions. To hold an opinion, even if it be a correct one, does not advance science. It is only when the basis of that opinion is analysed and demonstrated to one's colleagues that that opinion becomes a contribution to science.

Of those who believe that the Polynesians are a mixed people there are few who have taken the trouble to publish the evidence which converted them to that view. The most noteworthy contribution of those who have made a detailed study and analysis of the available data on Polynesia is that of Professor Dixon of Havard

University. On the basis of the published craniometric data he proposes four types which he names in terms of their characteristic brain case and nasal opening forms: a brachycephalic, hypsicephalic, and platyrrhine type; a dolichocephalic, hypsicephalic and platyrrhine type; a dolichocephalic, hypsicephalic, and leptorrhine type; and a brachycephalic, hypsicephalic and leptorrhine type. All of these types have high brain cases (are hypsicephalic). Two are longheaded and two are shortheaded. One of each of the longheaded and shortheaded types is narrow-nosed; the other is wide-nosed. These types are tentatively identified as Negrito, Melanesian, Caucasian and Malay.

Now while there was and is some doubt that these types as named are all to be found in Polynesia in sufficiently large numbers to be regarded as factors in the history or prehistory of Polynesia, there is no doubt of the physical diversity that their proposal implies. Professor Dixon does not claim that these elements or types entered Polynesia as pure types, or by separate migrations. He does not say which type is the true Polynesian, and makes no effort to identify any of his types with specific migrations. He has made it clear that much more data were needed to throw light on these phases of the problem. At the time of his publication there existed very few detailed studies on the living Polynesians. Through the generosity of Bayard Dominick, the Bernice Pauahi Bishop Museum of Honolulu has been enabled to help remedy this deficiency. These Dominick Expeditions have supplied data from Samoa, Tonga, Marquesas, Rapa and Hawaii. E. W. Gifford and W. C. McKern made the studies in Samoa and Tonga, E. S. Handy and Ralph Linton made the studies in the Marquesas, and J. F. G. Stokes and R. F. Aitken made the studies in Rapa. The American Museum of Natural History was invited to assist in the planning and carrying out of these expeditions. The Department of Anthropology of this Museum has been responsible for the somatological part of these surveys, and donated my services to make a study of the Hawaiian people and to analyse all the anthropometric data contributed by the anthropologists above named. The physical anthropology of this project has been throughout a co-operative study. Each of these men has generously turned over to me his field notes on this phase of the subject in the hope that uniformity in analysis and interpretation might result in a contribution of greater value to Polynesian anthropology than would a series of independent and uncorrelated efforts.

The records from Samoa, Tonga, Marquesas and in part those from Hawaii, have been analysed. So far I have succeeded in isolating two Physical types, each of which is still represented by

large numbers of individuals. I have tentatively called these types Polynesian and Indonesian.

They are characterised as follows:—

POLYNESIANS.

1. Light brown skin colour.
2. Wavy hair of medium texture.
3. Medium beard development.
4. Medium body hair development.
5. Moderate frequency of incisor rim.
6. Lips of average thickness.
7. Moderately long heads, average cephalic index 77 to 78.
8. Tall. Average stature 171 cms.
9. Very high and moderately high faces. Av. facial index about 90.
10. Very high but very broad noses. Av. nasal index about 75.
11. Nostrils oblique.
12. Nasal bridge elevated more than av.
13. Chin fairly well developed.
14. Eye fold absent.
15. Often lean and lank when unmixed.
16. Platymetric (shaft of femur flat).
17. Platynecmic (shaft of tibia flat).
18. Platonenic (shaft of ulna flat).

INDONESIANS.

1. Medium to dark brown skin.
2. Wavy hair.
3. Scant beard development.
4. Scant body hair development.
5. Incisor rim absent.
6. Lips above average in thickness.
7. Short heads. Av. cephalic index about 81-82.
8. Shorter stature. Average uncertain.
9. Very low, broad faces. Average facial index about 80.
10. Very low and very broad noses. Av. nasal index about 87-88.
11. Nostrils transverse.
12. Nasal bridge low.
13. Chin somewhat below average.
14. Incipient eye fold.
15. Heavy with short necks.
16. { Skeletal characters uncertain
17. { but not so flat as
18. { Polynesians.

The unsuspected presence in large numbers of this Indonesian type in Polynesia explains the often expressed opinion that the Polynesians and Indonesians are closely related types. An unfortunate confusion in terminology has done much to keep this opinion alive. One group of anthropologists has called a type in Indonesia, which resembles the Polynesians, Indonesian. The other group has called a type in Polynesia, which resembled the Indonesians, Polynesians. On any other basis than this there can be no reason for assuming a close relationship between the two types. From the characteristics listed above, it will be seen that the Indonesian is the antithesis of the Polynesian in nearly every detail.

The Polynesian is usually described by students of Polynesia as Caucasian in origin. It must be admitted that when the Indonesian traits are removed, the Polynesian is strikingly Caucasoid in appearance. If this is merely a parallelism in development, as some imply, it is most certainly a remarkable parallelism. At this time it is impossible to determine their exact place in the human family. The available data seem to indicate that the Polynesian is a type intermediate between Caucasians and Mongols. At present I am inclined to believe that they are an offshoot from the primitive Mongoloid stem close to where the Caucasian stock arose. Egotistically they may be regarded as somewhat unsuccessful attempts of

Nature to produce a Caucasian type. That they are closely related to the Caucasoid stock there can be no doubt. Some such type as this must have given rise to the Caucasian stock. Descendants of this or a closely related stock pass for Caucasians in Europe to-day. Their final classification is somewhat dependent upon the systematic position of certain American Indian groups, the Ainu, and certain other Caucasoid or pseudo-Caucasian types in Malaysia and Asia. Their relationship to the Ainu is pretty clearly indicated.

The affinities of the Indonesian element in Polynesia are also somewhat uncertain. The Indonesian is usually looked upon as Mongoloid but in this study its Negroid characters are emphasized. Although its hair is only moderately waved, it has a very low broad nose with transverse nostrils, a very low broad face, thick lips and dark glabrous skin. Tentatively it may be accepted as a somewhat doubtful Mongoloid type diverging strongly in the direction of the Negro or Negrito. It is possible that this type is identical with that described by Professor Dixon as Negrito. This is by no means certain. But, if not, there are two brachycephalic, platyrrhine types in Polynesia. This type has often been mistaken for Melanesian and Negrito not only in Polynesia, but also in Indonesia. This is true not only of skeletal remains but of living individuals as well.

The Polynesian type is distributed throughout Polynesia. The distribution of the Indonesian type is not so well known. It occurs in Samoa, but is pretty well mixed up so that it is difficult to determine what proportion of the population it forms. In Tonga it is very important and less mixed. It is more concentrated in Haeno of the Haapai group than in the southern islands of this archipelago. In the Marquesas it is a very important element in the population, but is confined for the most part to the north-western islands of Uahuku, Nukuhiva, and Uapou. In Hawaii it is important but pretty thoroughly mixed up with the Polynesian element as well as the modern immigrant population of these islands.

From the frequency and distribution of these two quite distinct physical types in Polynesia, it is clear that they must have entered the Pacific at different times and possibly by different routes. Certainly they must have had different languages and cultures. The next problem in Polynesian anthropology is to associate these two physical types with their proper linguistic and cultural elements, to determine what each has contributed to the past and present cultures of Polynesia, and to determine which type was the predecessor in Polynesia. At first glance this seems simple enough, but further study makes it evident that no generalisations can be made at present. In the Marquesas, Dr. Handy has found differences in language and culture which correspond roughly to the distribution of the two physical types. It may also turn out that the first type to



enter Polynesia was not necessarily the first type throughout the whole of Polynesia. The present distribution of the two types, so far as I can determine it, lends itself to two interpretations. The Polynesians are to be found in all parts of Polynesia. The Indonesians are not at present to be found in all parts of Polynesia, nor indeed in all parts of the island groups in which they occur. Are the Indonesians late arrivals, not yet spread throughout the whole of Polynesia or were they the first comers to the islands in which they are now found? Are the Indonesian groups in Polynesia to be regarded as a part of a recent and uncompleted migration to Polynesia or as the remnant of an older and earlier population? Physical Anthropology alone cannot answer these questions. It will need the corroborative evidence of archæology and ethnology. The fact that the Indonesian element is so poorly represented in the skeletal remains to which I have had access makes me inclined to regard them as recent arrivals. Yet, it is possible that they were the first arrivals in Polynesia or at least in certain parts of Polynesia. The Indonesian rather than the Melanesian may be the short, dark predecessors of Polynesian tradition. The order of arrival may vary from group to group. This then is a question for the future.

In addition to these two types there is a Melanesian element in certain parts of Polynesia. Melanesian influence is naturally strongest in the south and west of Polynesia. It is present to some extent in Tonga and has also been described in New Zealand and Easter Island. On the whole the Melanesian element in Polynesia has perhaps been slightly exaggerated. The influence of the Polynesians in Melanesia has been greater than the influence of the Melanesians in Polynesia.

None of these types account for the extreme degree of brachycephaly or short-headedness characteristic of certain parts of modern Polynesia, notably Tonga, Samoa, Tahiti and nearby groups, Hawaii, and, to a lesser extent, the Marquesas. The Indonesians are only very moderately brachycephalic. But in the groups named, indices of 90 and above are frequent. It is to this element of the Polynesian population that Professor G. Elliot Smith has referred as Proto-Armenoid. It corresponds to Dixon's brachycephalic, hypsecephalic, leptorrhine type. This element of the population has also been described as the true Polynesians, other students have referred to it as Indonesian. So far I have not been able to associate a sufficiently large number of distinctive characters with this undoubtedly artificially shortened head to warrant its isolation as a separate type. I account for it myself by calling it a Polynesian type with an artificially flattened occiput. This is still an open question and further research may prove it to be indeed a distinct type. Strangely enough it is not an important element in the skeletal material.

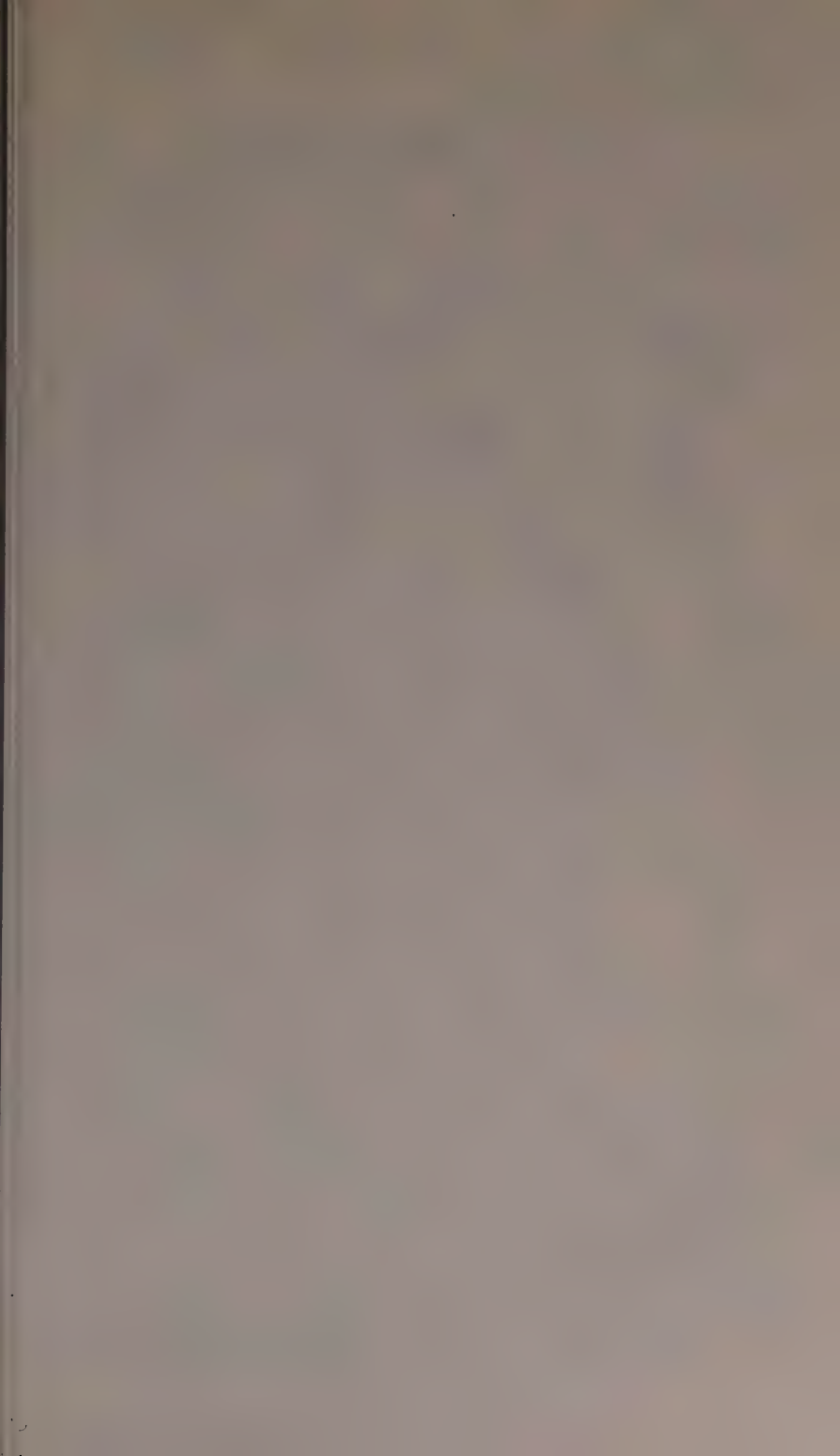


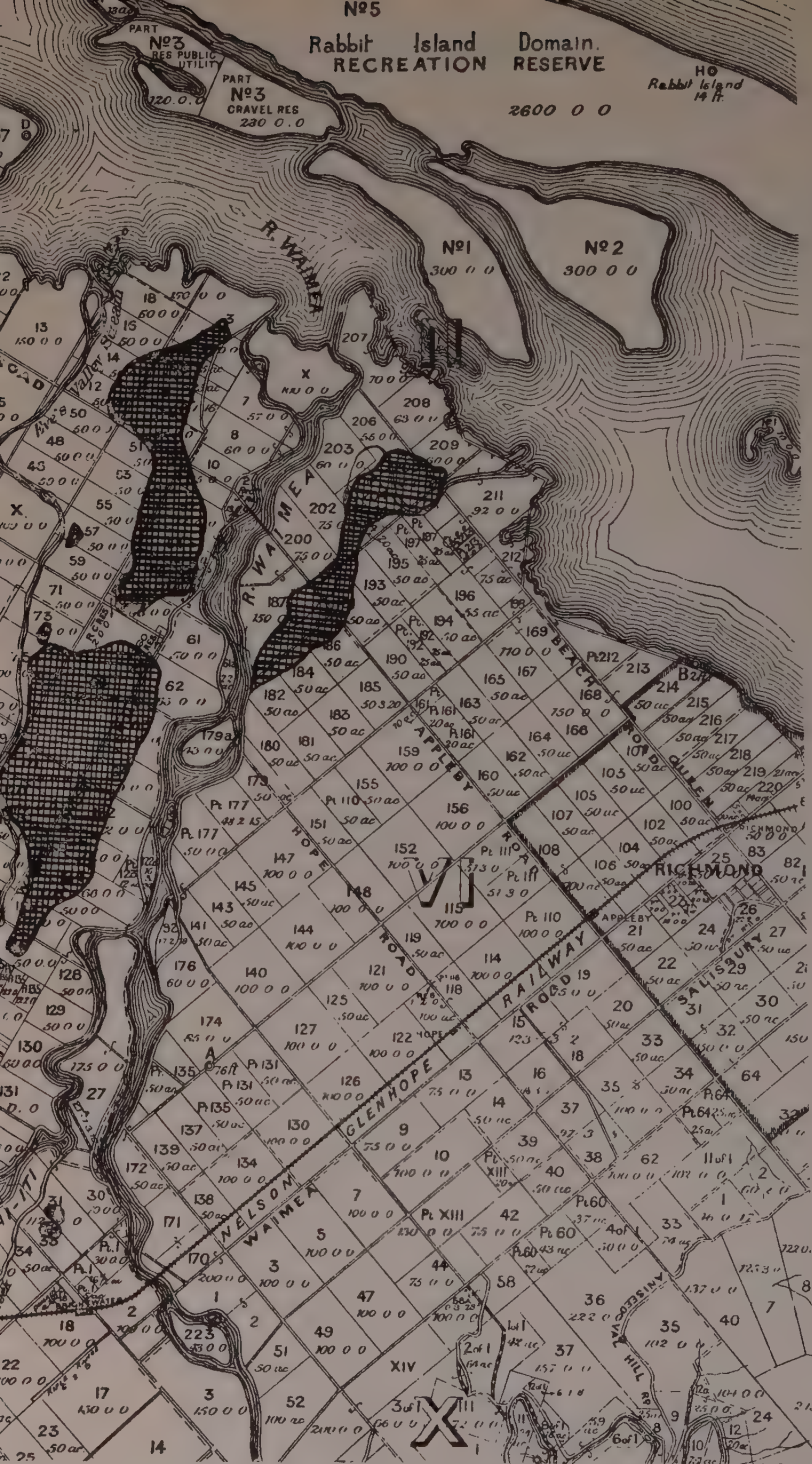
Again, this leads me to believe that it is either a new custom or a recently arrived type in Polynesia. Only in the Tongan skeletal remains is it a dominant element.

So far then these studies confirm the impression that the Polynesians are a mixed people. In addition to any Melanesian element that may occur, there is the Polynesian type which approaches the Caucasian type and the Indonesian type which approaches the Negro or Negrito type. Both may be divergent Mongols. As yet it is uncertain whether the extremely short-headed types are Polynesians with artificially deformed heads or another element in the population of Polynesia. It is certain that the short-heads are due to some extent to artificial deformation.

In brief, like Professor Dixon, I recognise four elements in the population of Polynesia. Unlike him I do not call them Negrito, Melanesian, Caucasian, and Malay, but Indonesian, Melanesian, Polynesian, and Polynesian with deformed heads. The Polynesian and Indonesian types are by far the most numerous and important elements of the population. The sequence of all of these types is yet to be determined. There is still much to be learned about the physical characteristics, racial origins, and affinities of the population of Polynesia.\*

\* Detailed reports on the physical anthropology, archæology, and ethnology of the Polynesians will be found in the current publications of the Bernice P. Bishop Museum, Honolulu, Hawaii. Dr. Dixon's article appeared in the proceedings of the American Philosophical Society, Vol. IX., No. 4, 1920, p. 261. Te Rangi Hiroa (Doctor P. H. Buck) himself a Maori, is publishing serially an important somatological study of his race in the *Journal of the Polynesian Society*, Vol. XXXI., 1922. In addition to the standard and approved anthropometric results, Dr. Buck discusses the linguistic and traditional evidences or explanations of diversity in physical types.





distribution of Maori Gravel Soil in the Waimea Plains, Nelson.

Scale 1/91 inch = 1 mile.

# THE MAORI GRAVEL SOIL OF WAIMEA WEST, NELSON, NEW ZEALAND.

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**D**URING the progress of a soil survey of the Nelson district, attention was drawn to certain areas of so-called Maori gravel soil. This soil was prepared by the Maoris for their crops, presumably *kumaras* (sweet potatoes), before the occupation of these lands by the Pakeha. Examination of the soil in the field and in the laboratory has elicited several facts which will be of interest to students of the Maori race.

## LOCATION AND EXTENT.

The Maori gravel soil occurs in well-defined areas, on both sides of the Waimea river. The main stretches occur in Waimea West where there are 800 acres of the soil. On the eastern side of the Waimea river there is another large area of the soil, covering about 200 acres. Smaller patches occur along the banks of the Wai-iti river and Eve's creek. The total area of Maori gravel soil in this part of the Nelson district is more than 1,000 acres. The accompanying map shows the location of the soil and the extent of the various areas.

## GENERAL CHARACTERISTICS.

Maori gravel soil, as its name implies, contains a large percentage of fine gravel and coarse sand. This makes the soil easy to cultivate and frees it from standing water, even in the wettest weather. The soil is conspicuous by its dark colour and the presence of small stones and coarse sandy particles, in fairly constant proportions. The soil is now used by farmers for general farm crops which are invariably good and equal in yield to those obtained from any soil in the Nelson district. Considering the sandy nature of the soil this is surprising, particularly as other sandy soils in the vicinity are remarkable for their poverty. The sandy soil of Rabbit Island may be cited in this connection. In texture it bears a close resemblance to the Maori gravel soil, but it is, nevertheless, so poor, that even tea-tree (*Leptospermum spp.*) fails to grow on parts of the island. Another feature of interest is the fact that while Nelson soils generally respond to liming and the application of phosphatic manures, the Maori gravel soil shows little response to this treatment for ordinary farm crops.

## CHEMICAL EXAMINATION.

In order to ascertain the reason for the high fertility of Maori gravel soil, several samples were obtained from different parts of Waimea West and analysed. The following table shows the amounts of "available" plant food contained in Maori gravel soil, as well as other soils of the district.

TABLE I.

Percentage of "available" <sup>1</sup> Plant Food and "Lime Requirements." <sup>2</sup>

Soil.	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	Potash (K <sub>2</sub> O.)	Lime Requirement.
Maori gravel <sup>3</sup> ..	·042	·019	·11
Moutere loam ..	·003	·014	·32
Waimea loam ..	·011	·017	·18
Waimea stony loam ..	·007	·010	·26
Stoke fine gravelly loam	·018	·024	·20

The results of the chemical analyses show that Maori gravel soil is much richer in mineral food, available for plants, than other soils of the district. It contains about fifteen times as much available phosphoric acid as is contained in Moutere loam. The lime requirement of Maori gravel soil is low when compared with that of other soils. It is not surprising, therefore, that the soil has a remarkably high fertility. The absence of effect in the application of phosphatic manures and lime for ordinary farm crops is adequately explained by the results of the chemical analysis.

THE ORIGIN OF THE LARGE STORES OF PLANT FOOD IN  
MAORI GRAVEL SOIL.

Since farmers who cultivate the Maori gravel soil use little manure for their crops, it follows that the large stores of plant food in this soil were not introduced by Europeans. The soil has, indeed, been growing good crops since settlers first took up this land some sixty years ago. As a result, large quantities of mineral plant food must have been removed by crops from the soil. The manures which have been used would compensate for a part only of that removed by the crops.

1. Soluble in 1 per cent. solution of Citric Acid.
2. As determined by Hutchinson & MacLennan's method.
3. The percentages given are the average from three samples.



Two explanations of the large amount of mineral plant food in Maori gravel soil are possible:—

1. The soil used by the Maoris in making their *kumara* beds was naturally very rich in plant food.
2. The Maoris introduced large amounts of mineral plant food in the preparation of the land for their crops.

In order to determine the origin of its high fertility an examination of the soil and substrata *in situ* was made. Pits were dug in several places, on typical areas of the soil, and notes were made of the nature and depth of the various layers which form Maori gravel land. Commencing with the surface soil, the following layers were found:—

- |                               |    |                         |
|-------------------------------|----|-------------------------|
| No. 1.—Fine gravelly sand     | .. | thickness 10"-16".      |
| No. 2.—Loam                   | .. | thickness 18".          |
| No. 3.—Fine sand              | .. | thickness 10"-30".      |
| No. 4.—Coarse Sand and Gravel |    | thickness several feet. |

Layer No. 1 constitutes Maori gravel soil which was spread over the loam by the Maoris. The lower layers have been deposited by the Waimea river in past ages, and have not been disturbed by the Maoris except at the pits from which they excavated sand, silt and gravel for use in spreading over the loam. These pits are still plainly visible, and despite the fact that they have been partly filled in by farming operations of the present day, vary in depth from three feet to six feet. An examination of the pits show that the Maoris must have utilised the material from layers 3 and 4 for spreading over the loam. Undoubtedly some of the loam from layer 2 became admixed with the lower layers during the process of excavation, but mechanical analysis of the Maori gravel soil shows only a small percentage of fine particles such as are contained in layer 2.

One noticeable feature connected with layer 4 is the fact that it contains about 10 per cent. of larger gravels which range from  $1\frac{1}{2}$ " to 4" in size. Stones of this size are rarely found in the soil made by Maoris. The larger gravels must therefore have been picked out from layer 4 either during the process of excavation or at the time of spreading on the land. Large piles of stones which have been thrown aside, are plainly visible, usually in the pits themselves, in different parts of the Maori gravel area. Another interesting point of difference between the original excavated material and the prepared soil lies in their colour. The excavated material freshly dug from layers 3 and 4 is light brown in colour, while the Maori gravel soil is so dark that in wet weather, when the colour can be observed to advantage, it appears to be nearly black. Natural soils in the vicinity do not exhibit this dark colour: They are invariably brown, somewhat similar to the freshly excavated material. While it is natural to

expect a darker colour in the topsoil when compared with its subsoil or substrata, this can hardly explain the very dark appearance of Maori gravel soil. An examination of the soil revealed the fact that it contained considerable quantities of charcoal, which could be separated to some extent by the simple immersion of the soil in water. The charcoal was noticed in several areas of the Maori gravel soil and occurred, not only in the top 9", which may be regarded as the true top-soil, but was found to the full depth of 12" to 16", which constitutes the whole layer of the prepared soil. The dark appearance of Maori gravel soil results, in fact, principally from the presence of the charcoal, which apparently was introduced from the very beginning, in the preparation of the land for their crops.

#### CHEMICAL EXAMINATION OF THE LAYERS.

Table II. shows the analytical results of samples of the above mentioned layers taken near the pit sites on Messrs. O'Connor's property, Waimea West.

TABLE II.

Plant Food content of the Layers associated with Maori Gravel Soil.

Layer	Character	Total Nitrogen.	Soluble in Hydrochloric Acid.		Soluble in 1% Soln. Citric Acid.	
			Phosphoric Acid, (P <sub>2</sub> O <sub>5</sub> )	Potash (K <sub>2</sub> O)	Phosphoric Acid, (P <sub>2</sub> O <sub>5</sub> )	Potash (K <sub>2</sub> O)
No. 1	Top 9" of Soil ..	·078 p.c.	·16 p.c.	·60	·046	·024
	Bottom 7" of Soil..	·026 p.c.	·12 p.c.	·55	·047	·022
	(Maori Gravel Soil)					
No. 2	Loam ..	·078 p.c.	·09 p.c.	·63	·015	·012
No. 3	Fine Sand	·023 p.c.	·10 p.c.	·60	·027	·008
No. 4	Coarse Sand and Gravel	·016 p.c.	·10 p.c.	·57	·032	·009

NOTE :—The analysis of further samples taken from different parts of Messrs. O'Connor's property agree closely with those given above.

The results of the analyses show that the whole layer of Maori gravel soil is much richer in available plant food than the layers of the underlying strata. There is an accumulation of ·016 per cent phosphoric acid (P<sub>2</sub>O<sub>5</sub>) and ·015 per cent. potash (K<sub>2</sub>O) over the amounts contained in layers 3 and 4 which were used by the Maori in the preparation of the soil. The accumulation of phosphates, as represented by the amounts contained in the hydrochloric acid extract is even greater, being on an average ·04 per cent. higher than the

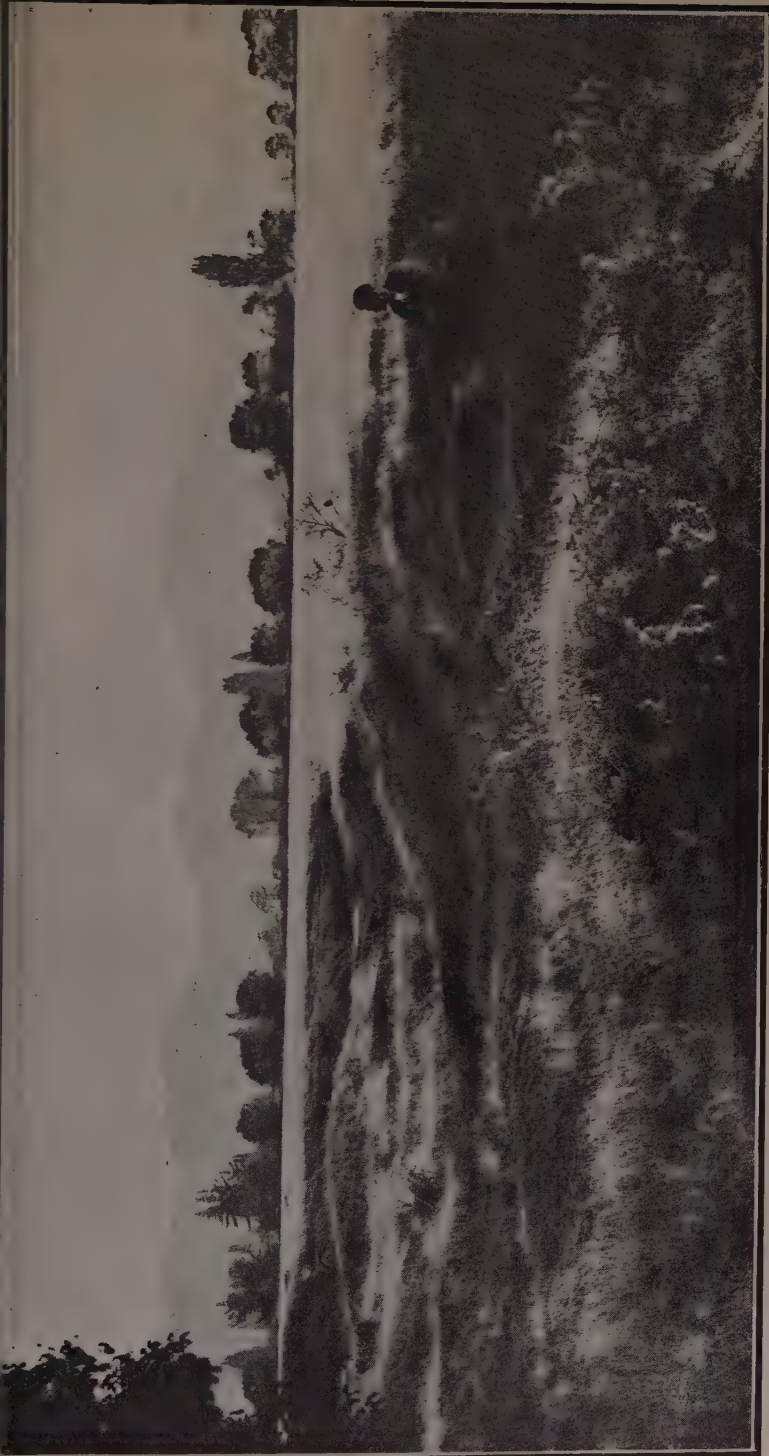


Photo by W. C. DAVIES.

TYPICAL MAORI GRAVEL LAND AND PITS, WAIMEA WEST, NELSON.

The mounds in the foreground consist chiefly of large stones discarded by the Maoris.



of layers 3 and 4. One interesting feature of the chemical results is the comparatively high percentage of available phosphoric acid contained in layers 3 and 4. These layers are much richer in this plant food than the original loam topsoil which occurred in this part of the district. Though the high content of phosphoric acid in these layers is, no doubt, partly responsible for the present high fertility of Maori gravel soil, it is insufficient to account for the whole of it and some other explanation of the exceedingly high fertility must be sought.

Chemical analysis of samples taken from another area of Maori gravel soil confirm the results which have been given already, though the enrichment of the soil has not taken place to such a great extent on this second area. The enrichment, in this case, amounts to .005 per cent. available phosphoric acid ( $P_2O_5$ ) and .008 per cent. available potash ( $K_2O$ ).

#### METHOD OF INTRODUCTION OF THE MINERAL PLANT FOOD.

The presence of charcoal throughout the whole depth of Maori gravel soil suggests that very large quantities of wood must have been burnt on the soil. It is well-known that wood ashes contain considerable amounts of both phosphates and potash salts. Analyses of tea-tree and bracken ash, made in the laboratory, show that they contain about 1.1 per cent. of phosphoric acid and from 8 per cent. to 17 per cent. of potash. The ash of these plants is alkaline, and contains carbonate of lime, which would remedy soil acidity. It is not enough to assume that the Maoris simply burnt, from time to time, the vegetation growing *in situ* on their soil. This would not account for the large increase in either the available phosphoric acid or that soluble in hydrochloric acid. The increase can only be explained by a long continued policy of burning wood, or more probably scrub, taken from other lands in the vicinity.

#### SOURCE OF THE WOOD SUPPLIES.

The Moutere Hills flank the whole of the land used by the Maoris. Nowhere are the hills more than one mile from their fields. Tea-tree, or *Manuka* (*Leptospermum ericoides*) flourishes on almost every part of the hills, and if cut, rapidly re-establishes itself. It seems probable that this was the source of the wood used for burning on their soil. It is difficult to give any estimate of the total quantities of wood which were burnt on the lands during the Maori occupation. The accumulations of the present day represent a portion only of the quantities of plant food which must have been introduced by the Maoris. Large quantities of potash would quickly leach out of such a loose textured soil, and the crops of both Maoris and Europeans



must have removed very large amounts of both potash and phosphoric acid. On the richer portions of the Maori gravel lands, several hundred tons of vegetable matter must have been burnt on each acre.

#### NITROGEN SUPPLY OF THE MAORI GRAVEL SOIL.

It is well-known that the three important plant foods obtained from the soil by crops such as *kumaras* are phosphates, potash, and nitrogen. There is no doubt that the burning of large quantities of wood on the Maori gravel soil resulted in a plentiful supply of the two plant foods first mentioned. The supply of nitrogen for the *kumaras* would not be increased but reduced by the burning of wood on the land. In view of the statements, by observers of Maori practice, that no animal manure was used for their crops, it is at first difficult to understand how good crops were obtained on a soil which has such a low nitrogen content as that of the freshly excavated material from layers 3 and 4. During the early stages in the formation of the Maori gravel soil, the lack of nitrogen would not be quite so noticeable, for the roots of the *kumaras* would quickly penetrate to the underlying loam, which is comparatively well supplied with this plant food.

As the thickness of the Maori gravel soil increased, starvation from lack of nitrogen must have resulted, unless some means of supplying this fertiliser was employed. If fish, taken in times of plenty, had been utilised for fertilising the land, undoubtedly great benefit to the *kumara* crop would have resulted from the nitrogen contained in it. Peat taken from swamps and low-lying ground and incorporated into the soil, would also have benefited the soil considerably, not only by reason of its comparatively high content of nitrogen, but also by its property of retaining moisture and thus increasing the water supply of the crop. There are many swampy areas in the vicinity of the Maori gravel lands, where such peaty material could have been obtained. Whether it was used, however, is purely a matter of conjecture.

Perhaps the simplest explanation of the maintenance of the nitrogen supply of Maori gravel soil, is the supposition that periodically, the land was left uncropped. Under such conditions, the land would quickly revert to Nature's vegetation. The work of the Rothamsted Experimental Station has shown that Geescroft field, which was left uncultivated and untouched, gained nitrogen at the rate of 44 lbs. per acre per annum. This occurred, despite the fact that members of the order *leguminosae* were absent from the herbage of this field. Sir Edward Russell has attributed this gain in nitrogen to the activity of a specific bacterium, *Azotobacter chroococcum*.

Since a good *kumara* crop requires less than 40 lbs. of nitrogen per acre yearly, it seems possible that land periodically left uncropped would accumulate the nitrogen required for the years when *kumaras* were grown.

COMPARISON OF MAORI METHODS OF SWEET POTATO CULTURE WITH  
MODERN AMERICAN PRACTICE.

It is interesting to compare the methods adopted by the Maoris in the treatment of their *kumara* soil with present day experience in growing sweet potatoes. In a bulletin issued by the U.S. Department of Horticulture, the following statements are made:—

1. Sweet potatoes require a light, well-drained soil, underlaid by a clay or loam subsoil.
2. Excellent results can be obtained by manuring with commercial fertilisers containing nitrogen, phosphate and potash.
3. Soils very rich in nitrogen tend to give excessive growth of the vines at the expense of the tubers.
4. The sand overlying the clay or loam subsoil should not be too deep, otherwise the tubers are apt to be long and stringy.
5. The loam underlying the sand must be sufficiently porous to allow surplus water to drain away quickly.
6. Moderate applications of lime are advisable in order to secure the best results from sweet potatoes.

Viewing Maori practice in the light of American experience, it becomes apparent that modern agricultural practice agrees closely with that adopted by the Maoris.

The soil which they made, from the point of view of texture, drainage and underlying loam, met exactly the specifications of American experts for the sweet potato crop. In regard to manuring, the Maoris definitely supplied phosphates, potash and lime, from the ashes obtained by burning wood on the soil. They did not make the mistake of manuring too heavily with nitrogenous manures, although it is a matter of surmise how the nitrogen supply of their soil was maintained. The incorporation of charcoal into the soil was a material advantage, as the whole soil was blackened. This resulted in a greater absorption of heat and an earlier crop. A similar practice is adopted by the market gardeners of the Biggleswade District, England, where soot is used in large amounts, partly for the sake of the contained nitrogen, and partly for the purpose of obtaining early crops.

## SUMMARY.

A map has been prepared showing the location and extent of the Maori gravel soil in the Nelson district. There are over 1,000 acres.

Maori gravel soil consists of fine gravel, coarse and fine sands, which have been dug out from lower depths, and subsequently spread out on top of the loam which is the prevailing topsoil in this part of the district. The depth of the prepared soil varies from 10 inches to 16 inches. Large stones were removed from the material excavated. The sand used by the Maoris in the preparation of their soil is naturally rich in available phosphoric acid. A comparison of the Maori gravel soil with freshly excavated material similar to that used by them, shows that the prepared soil is richer in available phosphoric acid and potash than the original sand. This enrichment of the soil has not resulted from European farming practice, for little if any manure has been used by English settlers on these lands. The source of the enrichment was apparently wood ashes, since the soil is black, owing to the presence of much charcoal. Wood, scrub, or other vegetable matter must have been brought on to the land and there burnt. Tea-tree (*Manuka*) is suggested as the form of vegetable matter which was employed for this purpose. The ash of tea-tree is rich in phosphates, potash and lime.

It has not been possible to ascertain how the Maoris maintained the nitrogen supply of their soil, although several methods have been suggested by which this could be effected.

The soil prepared by the Maoris and the general treatment of the land agrees well with the specifications for soil and treatment demanded by agricultural experts for the successful growing of sweet potatoes.

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[It is interesting to note in connection with this valuable paper by Messrs. Rigg and Bruce, the practice of the Taranaki Maoris in the preparation of a compost for use in the cultivation of the *kumara*. It was the custom of these people in by-gone times, after a flood in the rivers, or a storm at sea, for the experts in agriculture (the *tohunga* or priests who taught this and other branches of learning and ancestral lore, in the *Whare-wānanga*, or Maori College) to examine most carefully the deposit of sand and silt thrown up or left by storm and flood. If, in the opinion of the *tohunga* these deposits were suitable for the purpose, and the omens propitious, the people were at once assembled, and what we may term a "*kete* brigade" (on the lines of the familiar bucket brigade) was formed, and the sand and silt gathered in *ketes*, or baskets, and passed from hand to hand to a spot selected, where it was mixed with vegetable matter, gathered in by other bands of workers. This consisted mainly of the succulent ground-fern called *Moukū* (*Asplenium bulbiferum*), which grew in abundance throughout the neighbouring forests, and the leaves and tender branches of certain shrubs of the *coprosma* family—the *taupata*, *karamu*, *raurakau*—and probably leaves of other trees and shrubs in a lesser degree.

This deposit when thoroughly mixed was carefully covered, and after due religious ceremonies, was set apart and left to mature in readiness for the planting season, when it was opened up and apportioned out by the *tohunga* to the various family plots prepared for the growing of the *kumara*.

The term applied to this mixture was *whakaparapara*, a free translation of the meaning of which is, to add or blend ingredients (into a compost) for the purpose of producing a vigorous growth.

Mr. W. J. Gray of Okato, Taranaki, to whom I am indebted for the above information, states that there is one of these *whakaparapara* heaps near his homestead, on the banks of the Hangatahua (Stony River), the only one known to the Maoris of that district, where it has remained untouched for over a century.—EDITOR.]

# THE FALL OF MOKOIA AND MAUINAINA AND THE DEATH OF KAEA.

1821.

As related by Anaru Makiwhara of Ngati-tai, Maraetai.

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BY GEO. GRAHAM.

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**M**OKOIA is that *pa* on the Tamaki River near by the Panmure Bridge; Mauinaina is just inland thereof. These were the forts built by the Ngati-paoa chiefs in defence against Ngapuhi; this attack, long expected, took place at a time when many Ngati-paoa were absent on an East Coast war in company with Ngati-whatua under Te Kawau.

It was in Australia that Te Hinaki and his son Penehe-reti met Hongi, who showed him his guns brought from England, and asked him, "*Mo hea ingiou pu?*" ("For what object are your guns?") Hongi replied, "*Mou aku pu.*" ("For you are my guns.")

Then Te Hinaki knew that Hongi contemplated revenge for past wars, and for the Ngati-paoa raid against Ngapuhi when the great war canoe "*Kahu-mauroa*" was captured.

After attacking various villages at Mahurangi, Orewa, Weiti, Whangaparaoa, Takapuna and the Ngatipaoa Islands, the Ngapuhi arrived at Tamaki and laid siege to Mokoia and Mauinaina.

Te Hinaki was the chief of Mauinaina, he was armed with two guns; Hongi personally had six, he was also armed with a *Kahu-mata* (Coat of Mail) and a steel helmet. At the fall of the *pa* Te Hinaki lost his life, but he was really slain by a gun fired by a Ngati-paoa chief; this was his own people, and was the outcome of jealousy. Hongi found the body and decapitated it, taking the head to Ngapuhi.

The siege of Mauniaina lasted three days, and when the *pa* was about to fall, Rewa of Ngapuhi sent word to those in the Mokoia *pa* on the river side to urge them to escape.

This was Rewa's message to Te Rauroha, the Ngati-paoa chief in the Mokoia *pa*, "*Emara, e Rauroha! e haere mai ahau kia koe; haere, haere! Ko apopo ki te ata ka whaka-ekea koe.*" ("E friend, Rauroha! I come to thee (to advise thee) depart home, for to-morrow at dawn thou will be attacked.") To this advice Te Rauroha agreed, and that night most of his people departed, and had reached as far as Tuakau by daylight.



In the morning Ngapuhi stormed the *pa*, but found but few defenders, only those determined to die on their land were in the *pa*.

Then there was much fighting in the open, as Ngapuhi and Ngati-paoa chiefs engaged in combat, whilst many were escaping by swimming across the Wai-o-taiki (Tamaki River), some were drowned and others captured or slain.

Then it was that the son of Takurua, Kaea (also known as Rangi-whenua) when leaving the Mauinaina *pa*, came close by Hongi who had got his foot jammed between two stakes of the palisading. He desired to attack Hongi, who kept him at bay with his pistols. Kaea was armed with a *kapu-kapu* or *panehe* (European adze). This he had obtained from the ship of Cruize the year before (1820). Several Ngapuhi warriors came to Hongi's rescue, so Kaea went off.

He had reached the river bank at Te Pupu-a-Kawau, fighting his way in company with others of his people. When he had swam across the river and was about to land on the opposite shore with several companions, he returned in answer to the challenge of the Ngapuhi chiefs Rewa, who was accompanied by Te Ihi (of Ngati-awa) and a Rarawa chief.

Te Ihi sang out, "*E Kaea, e! Ko ahau tenei Ke Te Ihi!*" ("Oh Kaea, ahoy! This is me Te Ihi!") So Kaea swam back in response to this challenge; they had been comrades in arms during a war expedition on the East Coast some years before.

When Te Kaea landed, Rewa first engaged in combat with him, Rewa's weapon being a *taiaha*. Thereupon all those fighting in that vicinity ceased their fighting and looked on at the duel.

They fought and Kaea parried all Rewa's blows, having struck Rewa twice. Rewa then retired, taunted thus by Kaea "*Tau Ringaringu e Re! he Ringaringa ngakia Kai!*" ("Thy hand oh Re, 'tis a hand for cultivating food only!")

Then the Rarawa chief stood forth, his weapon also was a *taiaha*. He likewise was twice discomfited by Kaea and retired from the contest. Then came Te Ihi, armed with a *toki-patiti* (tomahawk). Having parried Te Ihi's blows twice, Kaea was unprepared for a third blow aimed at him by Te Ihi with his left hand. Thus was Kaea killed.

The act of Te Ihi was disapproved of by all the Ngapuhi host, and Rewa publicly reprimanded him, for the etiquette is not to persist after a second blow is received from an adversary in a duel.

At the time of the capture of Mauinaina and the death of Kaea, his father Takurua was absent on the above mentioned war expedition to the East Coast. He was returning home by way of Waikato when he heard of his son's death.



## NOTES AND QUERIES.

### [332] The Origin of the Maori.

At p. 13 of Volume XXXII. of this Journal reference is made to a food product (*ari*) of the old homeland of the Maori. I have long thought that this must be a rice name, and so connected with *vari*, *fare*, *pari*, *padi*, etc., but have not met with the form in any work. I have, however, lately been informed by the Bishop of Dornakal, S. India, that *ari* is the Dravidian word for rice.

ELSDON BEST.

### [333] The Origin of the Maori.

Mr. Best wishes to correct a misquotation made in his paper "The Origin of the Maori," appearing in last issue of this Journal, by which Dr. J. D. Lang is made to say, in his work "The Origin and Migrations of the Polynesian Nation," that the Polynesians came into the Pacific from America, whereas what Dr. Lang actually wrote was as follows: "Let us therefore have done with these uncertain, unsatisfactory, and futile attempts of men to people America by Behring Straits, and let us follow in the right way, which is God's own way, by the Isles of the Southern Pacific Ocean." Dr. Lang maintained however that the Polynesians came from the Philippines, crossed the Pacific, and peopled America, of which they were the first inhabitants, a theory untenable in view of present day knowledge.

### [334] Stone Adze found embedded in rock face. Vavau.

We have received the following communication from the Rev. E. E. V. Collocott, Nukualofa, Tonga, under date 12th March, 1923. "Mr. McGregor of Vavau, writes to me . . . at Fofoa (in Vavau), some time back I found embedded in the solid rock near the face of the Liku, a *toki maka* (stone axe). It was firmly cemented into the rock, about six feet above high water mark. with about two-thirds of its length projecting, and had evidently been exposed by the weathering of the limestone. How long has it been there? I took a photograph of the place and will send you along a print when I take some off."

### [335] Geological Antiquity of Man.

A note in *Nature* (February 3rd, 1923, p. 157] discusses the findings of the International Commission which in September, 1922, visited the sites at Ipswich on which Mr. Reid Moir claims to have discovered evidence proving the existence of man in the Tertiary epoch. The Commission consisted of MM. Lohest, Fourmarier, Hamal-Nandrin, and Fraipont (Belgium), MM. Capitan and Breul (France), Messrs. MacCurdy and Nelson (U.S.A.), and Messrs. Reid Moir and Burkitt (Great Britain). The report presented to the International Institute of Archaeology at Paris states that the members of the Commission were unanimously of the opinion that Mr. Reid Moir's specimens from the base of the "Crag" were genuine artifacts and were found in deposits which were undoubtedly undisturbed, and belonged beyond question to the Upper Pliocene. We must therefore accept the existence of man at Ipswich in the Pliocene period of the Tertiary epoch—possibly not man himself nor even a direct ancestor, but a being who, in virtue of this industry, merits a place in the *genus homo*. The evidence carries back the date of this industry well beyond the 125,000 years at which Osborn dates the beginning of the Pre-Chellean industry.

[336] **Australian Cultural Influences in the New Hebrides.—The Imprint of the Hand.**

In *Journal Polynesian Society*, Vol. XXXI., p. 154, appears a note on the practice, common in Europe in Aurignacian times and wide-spread in other parts of the world, of amputating joints of the fingers. This custom has been recorded from, among other places, Australia, New Guinea, Goodenough Island, Fiji, and Tonga. Associated with it in many parts of the world is the practice of painting a hand or hands on rock faces, and from these painted hands finger-joints are often missing. In this connection Sollas ("Ancient Hunters," 2nd ed., p. 352), says:—

"Among most of the peoples who amputate the fingers there is a custom of imprinting the outline of the hand on the walls of caves or on the face of a cliff. There are various ways of doing this, a common plan is to shield the surface of the rock with the outspread hand and then to apply pigment all round it; by this method the hand is left in blank on a coloured ground; but sometimes direct impressions are obtained by smearing the hand with pigment, and then stamping it on the rock. We may distinguish these as positive, the others as negative imprints. Imprints, both positive and negative, have been observed on the walls of caves in California, Arizona, Peru, Africa, and Australia—the red hand has also been observed in Egypt, Palestine, Arabia, Babylonia, India, Phœnicia, and Mexico. . . . They also occur in the painted caves of France and Spain. . . . There can scarcely be fewer than 200 imprints on the walls of the cave of Gargas, and among these a large number are sadly mutilated." Professor Sollas then discusses various methods by which the imprints can be made. He continues, "It is asserted, and there can be no doubt of the fact, that the Australians sometimes employ a different device: filling their mouth with red ochre or charcoal, they puff the pigment against the hand while it covers the dampened surface of a rock."

The practice of finger amputation was, as noted above, well established in Australia and the Western Pacific, and it is interesting to note that the custom so often associated with it of imprinting hands, frequently recorded in Australia, was practised also in the New Hebrides. Mr. T. W. Riddle tells me that in a cave some three miles south of Dillon's Bay in Erromanga he has seen a large number of negative imprints of hands. The natives who accompanied him said that these were made by filling the mouth with charcoal dust and puffing it over the hand which was placed on the rock face. They stated that no significance attached to the imprints. This occurrence in the New Hebrides of an Australian custom carried out in the peculiar Australian manner is the more notable from the fact that in the same group, on the north coast of Espiritu Santo, the Australian Boomerang occurs as a pre-European culture-element.

Since the above was written I have found that Macalister [*Text-book of European Archæology*, Vol. I., p. 511] quotes Margitot [*Essai sur les Mutilations Ethniques*, C.A.P.A. Lisbon, 1880, pp. 549 ff.] as authority for the existence of the practice of mutilation of fingers in New Caledonia. In Melanesia the practice has, therefore, now been recorded in Fiji, New Caledonia, and the Louisiades, while the practice of hand-stencilling, associated with it in Palæolithic Europe, has been recorded in the New Hebrides. Finger-mutilation and hand-stencilling were associated in Australia, and finger-mutilation is recorded among the Mafulu of New Guinea. In these circumstances it is strange that neither practice has yet been recorded from Polynesia, except from Tonga, where it was probably a relatively recent borrowing from Fiji.

H. D. SKINNER.

**[337] Pottery in Tonga.**

In the same publication Mr. E. W. Gifford reports the collection of a great amount of ethnological data as the result of nine months' work in Tonga. Perhaps the most interesting results of the expedition are those obtained by Mr. McKern, who carried on excavations at ten sites. His most startling find was that of pottery, which is not made by the Tongans to-day.

**[338] Ethnological Research in the Marquesas.**

In the report of the director of the Bernice P. Bishop Museum for 1921, are a series of very interesting progress reports sent in by parties belonging to the Bayard Dominic Expedition working in various Polynesian Groups. Of the Marquesas Ralph Linton reports: "The material culture of the group has suffered greatly from European contact. . . . The culture shows an unusually high development of wood-carving and stone work, coupled with poor development of mat weaving and tapa making. The latter is especially interesting, as certain primitive implements are employed here that are rare or lacking in other parts of Polynesia. The culture as a whole appears to be most closely related to that of the Maori, the resemblance being strongest in the canoe forms and in the art. In view of the lack of data from other parts of Polynesia it is dangerous to theorize, but it seems probable that the Marquesan and Maori material culture were derived from a single ancestral type which was subsequently modified both in the Marquesas and in New Zealand. The differences at the beginning of the historic period were probably due to (a) the environment of the two peoples, which was tropical and oceanic for the Marquesans, and temperate and almost continental for New Zealand; (b) the addition of new cultural elements, coming mainly from Melanesia in the case of the Maori, and from other parts of Polynesia, notably the Society Islands, in the case of the Marquesans." The views of Mr. Edward S. Handy diverge somewhat from Mr. Linton's: "The culture of the Marquesan islanders was thoroughly and basically Polynesian. There are, however, marked differences from what is usually regarded as the typical Polynesian complex; certain elements are entirely or almost entirely lacking—for example the great sacredness of the chief, and a complicated social order. On the other hand, elements are present for which we find no certain correspondence elsewhere—for example, the tattooing and carving arts. The discovery of the causes or sources of these differences furnishes an interesting problem for the ethnologist. . . . My impression is that in the first place the Marquesas were little influenced by some later cultural infusion that came into the more westerly groups and overlaid an earlier culture; and that on the other hand, there are strongly present in the Marquesas cultural elements which are not truly Polynesian, the sources of which must be sought beyond the western limits of this culture area."

**[339] Archæological Work in Hawaii.**

In Bulletin 74 of the Bureau of American Archæology, Gerard Fowke gives an account of his archæological investigations in the Hawaiian Islands. An account, with measurements, is given of various house-sites, *heiau*, and "cities of refuge," illustrated by a number of excellent plates. Mr. Fowke states that Mr. Thurmon's forthcoming volume will completely cover this branch of archæology. "The Bishop Museum has undertaken to make a complete survey and report of all the ancient remains, while Dr. Brigham has almost finished for publication an exhaustive treatise which will include all his observations and deductions along the same lines. With these tasks ended there will be nothing left for anyone else to do, except to take measures for the restoration and care of the principal structures



"All the aboriginal remains on the islands are the work of the present Hawaiian race. When the earliest of these people came here they found the islands without inhabitants. There are no evidences of any prehistoric population nor any indications whatever of underground remains. Consequently, so far as can be ascertained, excavations would not result in the discovery of any prehistoric objects or of anything essentially different from what can be seen on the surface or found slightly covered by very recent natural accumulation. At the same time, all the remains are well worthy of study and preservation. These conclusions meet the full approval and indorsement of Mr. Thrum and Dr. Brigham."

#### [340] Tattooing in the Marquesas.

Bulletin I. of the Bernice P. Bishop Museum [Bayard Dominic Expedition, Publication No. 3] is devoted to an account of Marquesan Tattooing by Willowdean Chatterson Handy. This is by far the fullest and most accurate account of a subject of great interest and importance in the study of Polynesian ethnology. The scope of the research is explained in the introduction: "Drawings and photographs of tattooing patterns on the bodies of natives were made by the author during a residence in the Marquesas Islands in 1921. As tattooing is now forbidden by the laws of the country, and the art is consequently dying out, this collection of the last specimens of tattooing patterns which exist to-day in the Marquesas has seemed to demand a complementary collection of information regarding the practice of the art, to the end that the beautiful motives might be at least partly accounted for and might some day take their merited place in the history of art. The data have been drawn from natives who have been decorated, from one old *tahuna*, or artist, who has practised tattooing, and from literary sources. . . . Discussion of the design itself, of which the natives know nothing to-day beyond the nomenclature, is undertaken in a spirit of appreciation and with the hope that the suggestions offered regarding the evolution and significance of this form of decoration may uncover other possibilities and lead to a more conclusive interpretation of the art." One of the most interesting results of Mrs. Handy's research is the distinction of two areas in the Marquesan archipelago, a south-eastern in which patterns were purely conventional with but minor relics of the geometric and the slightest trace of the naturalistic, and a north-western area, "showing several examples of naturalistic art, many of the geometric, and a simpler form of the conventional than the other." Within the European period the designs throughout the archipelago seem to have become standardised on the Hiva Oan fashion. "A survey of the two types of body decoration leads to the suggestion that there was a fundamental difference of concept between the two groups regarding the reason for its use. There was an emphasis upon endurance and fortitude in the mind of the north-westerner . . . while the south-easterner looked upon the art as more purely decorative."

It is strange that though the Maori and Marquesan tattooing techniques are identical, the designs of the two peoples have nothing in common. It may be suggested that the Marquesan designs are a local specialisation and elaboration of designs brought by their ancestors from Indonesia, and that the allied designs of the Hawaiian, Tahitian, and Tongan islands have the same origin. The Maori designs, on the other hand, would appear to have been taken over from West Pacific tribes whose designs survive on the well-known pottery faces of skulls from the Sepik river region of New Guinea. This change of patterns by the Maori ancestors involved no change of language, and they continued to call the now purely conventional markings by the old name *moko* (lizard). The Marquesans, as Mrs. Handy tells us (pp. 15, 17) used the lizard design in tattooing the face. Students of Polynesia await with interest the further publications of Mrs. Handy and of other members of the Bayard Dominic Expedition.

H. D. SKINNER.



[341] **Movements of Anthropologists.**

Dr. E. S. Handy, Ethnologist, and Mrs. Handy, Associate of the Bishop Museum staff, left Honolulu early in January to continue their researches in Polynesian culture. After a short stay in New Zealand they proceeded to Tahiti, where their work for the present year will be centred. *American Anthropologist*.

Mr. Robert T. Aitken and Mr. John F. G. Stokes, of the Bishop Museum, have returned to Honolulu after an absence of two years devoted to anthropological studies in connection with the Bayard Dominic Expedition. Their field work included the islands of Rapa, Rurutu, Ravaivai, and Tubuai. On his return journey to Papeete, several islands of the Tuamotu Group were visited by Mr. Stokes. *American Anthropologist*.

Anthropologists attending the Pan-Pacific Congress at Melbourne and Sydney, include Dr. A. C. Haddon, F.R.S., University Reader in Ethnology at Cambridge; Mr. W. J. Perry, Lecturer in Cultural Anthropology in the University of London; Dr. Macmillan Brown, and Dr. P. Buck and Mr. H. D. Skinner who are delegates from the Polynesian Society.

Mr. J. Hornell, a corresponding member of the Polynesian Society, resigns from the directorship of the Department of Fisheries, Madras, as from July 31st. He joins the Research Expedition which leaves London at the end of September, and enters the Pacific via Panama. After studying canoe designs in Eastern Polynesia, he proposes to visit the Solomons on the same errand, and afterwards other parts of the Western Pacific.



## PROCEEDINGS.

### POLYNESIAN SOCIETY.

THE Council of the Society met in the Library at 4 p.m. on Thursday, 21st June, 1923. Present: W. H. Skinner (in the chair), Captain Waller, Messrs. M. Fraser, R. H. Rockel and C. Waterston.

Minutes of last meeting were read and confirmed.

The Chairman reported that Dr. Buck and Mr. H. D. Skinner had accepted their nomination as delegates to represent the Society at the Pan-Pacific Congress to be held in Sydney, N.S.W., in August next.

In terms of his notice of motion given on 21st March last, Mr. Rockel proposed that the offices of Secretary and Treasurer be separated. Carried.

A letter was read from Mr. J. Frank Stimson, *re* papers dealing with the traditional lore of Tahiti, by the late Miss Teuira Henry, once promised to this Society, but recently acquired by the Bernice Puahi Bishop Museum of Honolulu. The Council expressed their appreciation of Mr. Stimson's efforts to secure the papers for the Society, and also satisfaction that these most valuable records were now in such good hands.

The appointment of the Rev. E. E. V. Collocott, M.A., Tonga, and Rev. C. Fox, Lt. D., San Cristoval, Solomon Islands, as Associate Editors to the Journal was reported by the chairman.

Mr. James Hornell, F.L.S., F.R.A.I., Department of Fisheries, Madras, was elected a corresponding member.

The following new members were elected:—

Mr. F. A. Hansen, 16, Upper Vincent Street, Auckland.

Nominated by W. H. Skinner.

Mr. W. T. Morpeth, Commissioner of Crown Lands, Hokotika.

Nominated by C. Waterston.

Mr. Geo. E. Beamish, Whanawhana Station, Hawke's Bay.

Nominated by W. H. Skinner.

It was resolved on the motion of Mr. Rockel, that subject to the accounts being found in order, the Treasurer be authorised to pay amount due to Avery's Ltd. for publishing the Journal, etc., and also account due for preparing blocks for illustrating Journal.



## MAORI PERSONIFICATIONS.

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### ANTHROPOGENY, SOLAR MYTHS AND PHALLIC SYMBOLISM: AS EXEMPLIFIED IN THE DEMIURGIC CONCEPTS OF TANE AND TIKI.

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BY ELSDON BEST.

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(Continued from Vol. XXXII. page 69.)

#### ASCENT OF TANE TO THE HEAVENS.

ONE of the most important of the subsequent acts of Tane was his ascent to the uppermost of the twelve heavens, in order to obtain from Io, the Supreme Being, the three baskets of knowledge. Whiro objected to this arrangement, as he wished to obtain these three *tapu* receptacles of knowledge for himself, hence he essayed to ascend to the heavens by means of climbing up the sides thereof. He was unable to do so and was forced to descend.

The story of the ascent of Tane is a long one, but he succeeded in his task, being borne upwards by the offspring of Tawhirimatea, that is by the winds. He obtained from great Io of the Hidden Face the three famed *kete* or baskets of knowledge, which contain the knowledge of good and evil, and of sacerdotal matters connected with Rangi and Papa. He also obtained two sacred and marvellous *whatu* or stones, one of which, styled the *Whatu kura a Tane*, he retained, and the other, the *Whatu kura a Tangaroa*, passed to Kiwa and Tangaroa, the guardians of the ocean and the denizens thereof. During his ascent Tane was attacked by the Multitude of Peketua, that is by birds, reptiles and insects, that had been despatched by Whiro to prevent Tane reaching the realm of Io in the *Toi o nga rangi*, the uppermost of the twelve bespaced heavens. It was then that the offspring of Tawhirimatea and Huru-te-arangi (winds) attacked and dispersed the Multitude of Peketua, and saved Tane. In this fable we see that Whiro, who represents Darkness, attacked Tane, who represents Light, as he was ascending the heavens, but Darkness was overcome by Light, the latter being assisted by the winds of space. The emissaries of Whiro were apparently night moving creatures.

Prior to being admitted into the presence of Io the Great, Io of the many names, Tane was conducted to the *Moana o Rongo* and here immersed in the waters, while being subjected to the *pure* rite.

Later on he again had this ritual performed over him at a second place known as an *ahumairangi* or *ahurewa*. It was then that he received his many names. The following names of Tane have appeared in published works:—

Tane nui a rangi	Great Tane, offspring of Rangi.
Tane matua	Tane the Parent.
Tane te waiora	Tane as Light and Life Giver.
Tane te wananga	Tane as source of knowledge.
Tane torokaha	Virile Tane.
Tane ue tika	
Tane tahurangi	
Tane tuturi	
Tane pepeke	
Tane te waotu	Tane as the forest.
Tane puhau rangi	
Tane turere	
Tane whiri kaha	
Tane maikiroa	
Tane ueha	
Tane kunawhea	
Tane wheo	
Tane te whiringa, or hiringa	
Tane mabuta	Tane as origin of trees.
Tane mataahi	Tane as origin of birds.
Tane te po tiwha	
Tane tikitiki	
Tane toko rangi	Tane as the sky proper.
Tane ruanuku	Tane the Wise.
Etc., etc.	

Tane received all these names (which differ somewhat in different versions) because he alone acquired the occult knowledge and lore concerning the twelve heavens and the suns, moon and stars of each division of the heavens.

### TANE TE WAIORA.

The word *waiora*, as it occurs in vernacular speech implies physical welfare, health, vigour. As one of the titles of Tane it appears to convey the sense of vitality as caused by Light, or by the sun. Hence Tane te waiora, if this view be correct, should be rendered as Tane the Vitaliser, on the basis of the old Maori teaching that warmth is the greatest essential in growth and welfare. This is why, in Maori myth, it is Tane that fertilizes the Earth Mother and produces vegetation as well as animal life, including man. Indeed native myth goes still further, and makes Tane the progenitor of the minerals.



kingdom. This latter teaching may be connected with the belief that all matter called by us inanimate, is, in Maori myth, endowed with a life principle. Tane received the name of Te Waiora because he brought Light and fresh air to this world and its denizens, and on account of his fertilizing and vitalising powers. The Ngati-Hau folk of Whanga-nui, said the late Mr. John White, explain that Tane-te-waiora was so named because he is the cause of the life of the moon being preserved. We shall explain anon the meaning of this remark.

### TE WAIORA A TANE.

Here we have another aspect of the matter, and a long study of the subject has led the writer to conclude that this *waiora* of Tane is an expression applied to light, sunlight. It is generally written as two words, and translated as "waters of life," as life giving waters, or as "living waters." The term *waiora*, as employed in connection with Tane, is, we believe, a concrete word, even as *waimate* is. In neither case has the *wai* any connection with *wai* = water, but is a prefix noted in some other words. It is not clear that this prefix has any effect on the word it is attached to, as *ora* or *mate*, and we have another illustration in *waimarie*, which seems to carry the same meaning as does *marie*. *Huka waitara* seems to be equivalent to *huka atara*, and *waihoe* practically the same as *hoe*. In Tahitian we find *vai* = to exist, and in the Paumotu dialect *vai* = to exist, and also *vaioara* = to survive. In Maori *waiora* is given in Williams' Dictionary as denoting health or soundness. Some further definitions might be added. At Tikopia Island, *ora* is a spirit or ghost.

In Maori myth it is in connection with the moon that we usually hear of the Waiora a Tane. One version is that the moon dies, or becomes enfeebled, whereupon it bathes (*kau*) in the Waiora of Tane and so recovers youth, or strength and life. Another version is that Rona assails and consumes the moon, and causes it to seek the Waiora. Herein we see that the enfeebled moon bathes in the Waiora a Tane, i.e., in sunlight, and is rejuvenated, which is a scientific fact. It is a curious thing that the Maori should teach that the moon is not in itself a luminous body, but shines by reflected light. Absence of heat may have led to this conclusion.

The following is a Maori charm recited over a sick person in order to expel the demon supposed to be afflicting him:—

"Ngau atu ki te rangi  
Ki nga pokeao  
Ki te rangi tuatahi  
Etc., etc.  
Ki te rangi tuangahuru  
Ki te Waiora a Tane."

Te Waiora a Tane is the name of a spring of water on the island of Porapora, Society Group. Te Waiora a Tane is said to be the name of a stream some distance south of Te Reinga in New Zealand. Spirits of the dead faring on to the Reinga on their way to the spirit world, once they cross this stream, cannot return to this life, to this world. Some are said to return to the physical basis ere crossing the stream, in which case they re-enter their bodies and the sick persons recover.

At Futuna, or Horne Island, these waters of life appear as Vaiola, and are situated in the spirit world. Here the spirits of the dead come to restore youth and beauty. See "Journal of the Polynesian Society," Volume I., p. 39.

We meet with this expression, the Waiora in native songs occasionally, as witness:—

"Kia whitirere ake au  
Me ko te ata i marama  
Marama te ata i Hotunuku  
Ko Tane-te-waiora e i."

("Fair dawned the morn at Hotunuku.  
Behold, it is Tane-te-waiora.")

Among the old traditions of the Hawaiian Isles, collected by the late Judge Fornander, is an ancient myth concerning one Aukelenuiaitu (perhaps Kantere-nui-aitu in New Zealand Maori). This hero went forth in search of Ka waiola loa a Kane (Te Waiora roa a Tane). In order to obtain it, he was instructed to proceed straight to the rising sun. He secured some of the "water of everlasting life of Tane," as the translation puts it, and therewith restored his dead brother to life. The wife of Aukele was Namakaokahai (? Nga Mata o Tawhaki), and Kane-makua (Tane matua) is also mentioned.

In Hawaiian myths Tane is clearly shown as representing the sun, as shown in Fornander's work. The east is called *Ke ala ula a Kane*, or as a New Zealand Maori would put it, *Te ara kura a Tane* (The red path of Tane) even as they styled the rising sun *Te Ra Kura*. Another Hawaiian name for the East is "The Great Highway of Tane." The West is termed *Ke ala nui o ka make* (*Te Ara nui o te mate*), or the Great Path of Death. "The Resting Place of Tane is another name for the West."

In W. D. Westervelt's "Legends of Old Honolulu" is one entitled "The Water of Life of Kane," in which it is shown that the bulk of the Hawaiian folk believed Ka Wai ola a Kane to be real waters that existed in the form of a lake situated in some far off land. These waters restored the dead to life, but were most difficult to procure "If any person secured this water, the power of the god went with it," i.e., the powers of Tane.

Upright stones found at various places in the Hawaiian Isles are known as Pohaku a Kane (Stones of Tane). These were anointed with coconut oil, and had their upper parts covered with black *tapa* cloth, reminding us of the "Black cloaked Priapus" of Greece. They were sacred phallic emblems. Fornander says that the Polynesians must at some former period have practised sun worship, and the above shows that the Hawaiians recognised the sun as the Fertilizer. He also states that the three gods Kane, Ku and Lono (Tane, Tu and Rongo in Maori myth) possessed distinct attributes, but were all manifestations of one god. Of these three Kane was the most important, and Fornander compares his name to the Sanscrit *Kan* = to shine. *Ra* = sun was known in Babylonia as well as in Egypt.

In pursuance of the fact that Tane represented Light, and that he is the personified form of the sun, it is as well to remark here that Whiro was ever hostile to Tane, and that Whiro represents Darkness. After a long contest Whiro was driven down to the underworld, hence he is called Whiro ki te Po, and thus Light was triumphant in this world. Tane conquered Darkness.

Oriental scholars may yet throw some light on Maori myths and tell us more concerning the three "baskets" of knowledge of Hindoo mythology, the exact expression employed in Maori myth, and whether the name of Tane is, or is not, connected with the Sanscrit *kan* or *dahn* or *danh* = to shine. Tu in Babylonian myth represented the setting sun and death, according to Fenton, while the Tu of Maori myth is god of war. In Egypt *Ra-tum* or *Tum* represented the setting sun and death; in the Paumotu dialect of Eastern Polynesia *ra tumu* denotes the setting sun. In Assyrian myth Rono is said to have represented the moon (given by Fenton), but throughout Polynesia Hina and Sina are the female personified forms of that orb. But at Hawaii Sina (Hina) is said to have taken the name of Lono (Rono: Rongo) when transferred to the heavens, so that Sina and Rongo of Polynesia are connected with the moon as are Sin and Rono of Babylonia.

Hare Hongi states that Tane had twelve names, including that of Tot-faced Tane, which correspond to the twelve months of the year; they culminate in Tane te waiora. Also that Tane poled or propped up the heavens with his long pillars or shafts of light, hence his name of Tane toko rangi. The word *toko* denotes a pole or prop, also "to prop up," also a ray of light.

We have seen that Tama nui te ra is a personified form of the sun. An old saying was, "When Tama-nui te ra rises, the heavens are light." When the ancestors of the Maori left the homeland of Irihia to seek a new home across the ocean, their leader said—"Me whai tatou a Tama nui te ra." ("Let us follow the sun"), meaning the rising sun. This name is not applied to the setting sun.

When Roiho, one of the celestial beings, announced that the heavenly bodies were about to be placed in position, he said:—"Light is coming in the form of Tama-nui-te-ra and the Marama-taiahoaho (refulgent moon), and the breast of our father will be dotted with the 'little sun' progeny."

When the Takitimu canoe sailed from Eastern Polynesia for the shores of New Zealand, their sailing instructions were, "Carefully keep the bow of the vessel on Kopu (Venus) during the night; in the day time follow behind Tama-nui-te-ra."

### TE MANU I TE RA.

A few brief allusions to this name are met with in Maori myth, as also in the saying:—"Hoatu! Tenei ano to taua tupuna, a Te Manu i te ra, e tu iho nei." ("Move on! Here is our ancestor, Te Manu i te ra, high in the heavens.") Apparently this name, the Bird in the sun, is applied to the sun, but we have gained no explanation of it. Another note says:—"Te Manu i te ra lived on Mount Hikurangi; which death cannot reach." Hikurangi and Aorangi were two renowned mountains in the homeland of the Maori, and mountains and hills in New Zealand, Rarotonga, and Tahiti bear these names. Possibly Hikurangi is the Maunga-nui on which the sun abode until set in the heavens.

### THE CONTEST BETWEEN LIGHT AND DARKNESS.

#### TANE VERSUS WHIRO.

We now come to a most interesting part of the myth of Tane, the long contest between him and Whiro. Whiro is often styled Whiro te tupua, the word *tupua* meaning demon, object of terror, or anything endowed with supernatural powers, thus a tree or stone may be looked upon as a *tupua* (of which *tipua* is a variant form). Now it is fairly clear that Whiro represents Darkness, and, in one way, Death, and his contest with Tane seems to have been a struggle between Light and Darkness. This struggle led to the defeat of Whiro, who descended to the Po or underworld, the so-called realm of Night or gloom. In the vernacular *po* signifies night. Whiro is also described as being the personified form of Evil, and thus a malignant *atua* (god, demon) is described as an *atua whiro*. Also, when a priest was enquiring into the character of a person over whom he was asked to perform a certain curious lustral rite that included immersion in water and the recital of extremely *tapu* ritual, he would ask him the question:—"Are you a *whiro* or an *ahurangi*?" ("Are you an evil person, or of good character.")

The enmity between Whiro and Tane seems to have begun at birth. Whiro was angry because Tane led the newly born children of Rangi and Papa out into the cold world, the chilly realm of space



He objected to the separation of those parents, and the forcible turning over of the Earth Mother so that she faced downwards. He objected to Tane ascending to the realm of Io in the uppermost heaven, and to the acquisition by him of the three baskets of knowledge and the sacred stones; to the insertion of the name of Tane in ritual; to the elevation of the heavenly bodies; to the many names of Tane; to the ceremonies performed over Tane, and his assumption of power. Twelve reasons are given for the enmity of Whiro against Tane; twelve is a number that frequently enters into these myths.

The war between Whiro and Tane commenced in the night of time and continues to the present day; it never ceases, peace has never been made by that twain. Hence the appearance of Maiki-roa, of Maiki-nui, and of Maiki-kunawhea (personified forms of disease) among the offspring of Tane. Hence Tahekeroa, the path of death that descends to the Po kerekere, the realm of Rarohenga (underworld), that consumes man, and trees, and all things of this world; hence the evil conditions of all things in this world. This is why Whiro is styled the Thief, and is looked upon as the patron deity of thieves. For Whiro it is who steals the offspring of Tane, i.e., man, and draws them down on the current of death to the underworld. For further light on the Tane—Whiro myth, see "Journal of the Polynesian Society," Vol. XXVI., p. 88.

It was Whiro who appointed the Maiki clan, he who brought disease into the world. (Cf. *mai* a Tahitian term of disease.)\* Of him it was said of old:—"The work of Whiro is the breeding of all types of disease that carry off man to the Po." Again, we are told in the myth of Tane and the Earth-formed Maid, that when the *pure* rite was about to be performed over her, Tu said:—"Let it be so performed that man may possess courage." But Rongo said:—"Let man be endowed with two qualities, *ihī* and *mārū*." (Courage, ability and benevolence, including hospitality and industry). Then Whiro spoke:—"Very well; then for me the *poautinitini*." (An expression implying death, and disease, and afflictions.) Hence we die, on account of that contention. Such were the three qualities given to man, *ihī*, *maru* and *poautinitini*; all phases of action and thought, all human activities spring from them.

The Maiki clan that afflicts mankind dwells in the "house" called Tai-whetuki, a term sometimes employed as a sort of antithesis to Taiao. This house belongs to Whiro and Tangaroa. It is the abode of evil, for it destroys man, animals, gods, birds, fish, food, and all other things. It was also the origin of black magic, the dread arts of the wizard. As the men of yore said:—"Ko Whiro te putake o te kino o te ao." ("Whiro was the origin of the evils of the world.")

\* Quite possibly this should be *mai'i*, as showing the dropped *k* of Tahiti.



He was a thief, and all his descendants are thieves; he stole the fire generating stick of Rangi, known as the *Ra kura*, he was guilty of the first act of *puremu*.

Now, the creature that represents Whiro in this world is the lizard, hence the lizard represents Death, and that is why it is such an evil omen to encounter a lizard during one's walks. It is the emissary of Whiro and the harbinger of death. This applies specially to the green lizard called *moko kaka-riki*, and not to the *tuatara*, which is allied to birds. The *moko kaka-riki* was one of the party of night moving creatures sent by Whiro to attack Tane.

### THE SEARCH FOR THE FEMALE ELEMENT.

We have now to speak of Tane as the Fertilizer, as the procreative power, as the progenitor of vegetation and of man. In Westropp's "Primitive Symbolism" occurs the following passage:—"In Egypt the Deity or principle of generation was Khem . . . . The office of Khem was not confined to the procreation and continuation of the human species, but extended even to the vegetable world, over which he presided . . . . Khem was styled Ammon generator, and was represented ithyphallic." Herein we have a description of Tane, as the following notes will show.

We have already seen that the whole of the seventy offspring of Rangi and Papa were of the male sex, and that all were supernatural beings, *atua* or gods. Now, the time came when these gods foregathered and decided that the female element must be sought, in order that a race might be generated to inhabit the world. It was proposed that the female element be sought in the heavens, where dwell the *marei kura* and many other female beings. But Uru said:—"Not so; for those are supernatural beings, and their offspring would also be supernatural. The female element must be obtained from the Earth Mother, in order to produce a race to dwell in the world as our descendants, but yet different from us."

Then Tane sought the various female beings, but these brought forth trees and plants of all species, which same is a long story. He then took Parauri, who brought forth birds, the *komako*, *patahoro*, *kokako* and *koko*. These were fed on the parasites of the heads of Rehua and Tunuku, but did not flourish, hence they were fed on those of the heads of the younger folk, of Tutu, and Mako, and Toro, and Maire, and Miro, and Kahika, who dwell in the forest of Tane (these are names of trees, the berries of which are eaten by birds). Even so Tane long sought the *uha* or female element among things formed by the gods. He took to wife Apunga, who produced plants and small birds. He took Mumuhanga, who brought forth the *totara* tree. He took Te Pu-whakahara, who brought forth the *maire* and *puriri*

trees. He took Rerenoa, who produced epiphytic plants. He took Tutoro-whenua, and produced Haumia (fern root, *pteris*). He took Hine-tu-pari-maunga, the Mountain Maid, who brought forth Parawhenuamea (personified form of water), and so on, a long list of failures.

Tane now concluded that it was a vain thing to seek the *ira tangata* (human life) among the *ira atua* (supernatural life). Long was the search for the *uha* (female) of the *ira tangata*, but in vain. Then was it said:—"There is no being to take the form of our mother, she is in danger of being forgotten. Let us never forget the 'night feeding breast' (*u kai po*) of our mother." Such were the words of Uru.

Then the *mareikura*, denizens of the uppermost heaven, told Tane that he must go to the Earth Mother, to the One i Kurawaka, and there form a mound, and produce Woman.

### THE FORMING OF HINE-AHU-ONE, THE EARTH-FORMED MAID.

Tane proceeded to the *puke* (*Mons veneris*) of Papa, and there he fashioned in human form a figure of earth. His next task was to endow that figure with life, with human life, life as known to human beings, and it is worthy of note that, in the account of this act, he is spoken of as Tane te waiora. It was the sun light fertilizing the Earth Mother. Implanted in the lifeless image were the *wairua* (spirit) and *manawa ora* (breath of life), obtained from Io, the Supreme Being. The breath of Tane was directed upon the image, and his warmth affected it. That figure absorbed life, a faint life sigh was heard, the life spirit manifested itself, and Hine-ahu-one, the Earth Formed Maid, sneezed, opened her eyes, and rose—a woman.

Such was the Origin of Woman, formed from the substance of the Earth Mother, but animated by the divine spirit that emanated from the Supreme Being, Io the Great, Io of the Hidden Face, Io the Parent, and Io the Parentless.

Thus Woman came into the world, and it is from this maid, named Hine-ahu-one on account of the manner in which she had been created, that man derives his earthly nature. For she was half of the earth and half supernatural, and she was the first being of the race of man. Here began the blending of the spirit of supernatural beings with that of man, which has continued until the present time. The seed of life is with Tane, and with man, with woman is the receptacle that shelters and nourishes it. The seed of the spiritual god is with the male, for he is a descendant of gods. Woman emanates from Papa, the Earth, and with her is the conserved water (that protects the embryo); she is the shelterer and nurturer, by whom all creatures acquire growth. Woman is a copy of the male, and the seed of life

emanated from Io mata ngaro, Io of the Hidden Face. The *ira tangata* (human life, life as known to man) pertains to the *kauwae aro* (a term denoting the earth and all things connected with it), but the *kauwae runga* (upper jaw, the heavens, celestial spheres) knows only the *ira atua* (supernatural life, as enjoyed by gods). In Hine-ahu-one and her descendants (man) we see the blending of the two.

In these interesting remarks, rendered as given by an old native, we see the Maori anthropogenic myth. The Sun fertilizes the Earth Mother, and, having produced water and vegetation, then begets man. But man must be something more than of the earth, and, though formed from earth, must be vitalised by means of certain *potentia* obtained from the gods and the God. These furnish the *wairua* (spirit), the *manawa ora* (breath of life), the *toto* (blood), and the *hau* (personality or personal *aura*). The union of heaven and earth, of *ira atua* and *ira tangata* is now complete; Man is the result.

In his cosmogonic myths the Maori first brought in Space, Chaos, Darkness, then Heaven and Earth, then the Heavenly Bodies, Light and Warmth, then Water, Soil and Rock, then Reptiles, Birds, Fish, Shell-fish, etc., and then Man. This is a fairly intelligible scheme of Creation, and betokens the exercise of a certain amount of thought. It is superior to the account given us in Genesis, which is jumbled as follows, if I remember aright:—

1st Day—Light. Night and Day.

2nd Day—Water.

3rd Day—Land. Vegetation.

4th Day—Heavenly Bodies.

5th Day—Fish and Birds.

6th Day—Animals. Man.

Here we have light and day and night, as also vegetation, before the sun existed, which seems to be a poor arrangement, to use a mild expression.

It is from the earthly origin of Hine-ahu-one that came about the belief in the inferiority of the female sex, notwithstanding its importance in ritualistic matters, and indispensability in other ways.

Schoolcraft tells us that the Indians of Virginia believed in one chief god, who is eternal, and creator of the world. He created an order of inferior gods to carry out his government, among whom were the sun, moon and stars. One of these minor gods begat man. Here we have a parallel belief to that of the Maori, who says that Io was the original god, that all minor gods emanated from him, or that he manifests himself in them, or caused them to exist.

Tane had seven children by Hine-ahu-one, all of them being females, and the eldest was Hine-titama.

## TANE AND HINE-TITAMA.

Tane then took his eldest daughter to wife, and by her had Hine-rau-wharangi and other females. When Hine-titama found that Tane was her own father, she fled from him and descended to the underworld. She is said to have taken refuge with Tane te po tiwha (Tane of the Dark Night), a name of singular interest, for it looks as if Tane represented both Light and Darkness. Tane te po tiwha probably represents the setting sun, or the sun during its passage through the underworld.

The guardian of the underworld strove to prevent Hine descending thereto, saying—"The world of life is behind you, return to it." But Hine passed downward, wailing as she went, her tears flowing. Her reply was:—"Let me pass; I am undone. Who said that the fire generating stick should be used as a firebrand." The guardian said:—"Beware! Behind my back is the Po."

Now Tane appeared, for he had pursued Hine, and strove to persuade her to return to the world of light. But Hine said:—"Return, O Tane! Yours be the task of fostering the growth and welfare of our children in the Ao marama. I shall descend to Rarohenga, there to receive the souls of our children." Even so Hine passed down to the underworld, where her task is to await the spirits of her children who have died on earth, to tend and protect them in the spirit world, where Whiro ever strives to defeat her and destroy the spirits under her care.

The last words of Hine, on leaving this world, were:—"I have been Hine-titama in the world; henceforward I shall be known as Hine-nui-te-Po."

Knowing as we do that the Maori of yore strove to fathom the origin of the universe and of man, that he personified all natural phenomena; also that he clothed his quaint concepts in mythopoetic imagery, and so passed them on to succeeding generations, it behoves us to make some attempt to read the riddle of these myths.

Does Hine-titama, daughter of Tane, the Sun, represent the Dawn. Does her flight from Tane the Parent to Tane te po tiwha represent her passage to the setting sun, where, naturally, she passes into or becomes Night, Hine nui te Po, the Great Dame of the unknown realm, ever ready to receive the souls of other dying dawns; dawns that pass to evening and to night.

It is probable that light would be cast on this matter by the meaning of the archaic word *titama*, did we but know it. The names of these personifications in many cases explain themselves, as Hine-te-nira, Hine-repo, Hine-pukohu-rangi, etc. The drawing down of the spirits of the dead to the underworld is personified or symbolised in Rua-toia and Rua-kumea, whose names are undoubtedly most suitable.

It was now, continues the myth, that the path of the dead was laid down to the underworld, through the instrumentality of Hine-titama, and that descending path is known as Tahekeroa. We now see the reason why that path of the spirits is called Hawaiki, because it is the place where man is *ikia* (consumed, devoured, perhaps engulfed in this case) into the *po liwhatiwha* (realm of darkness).

The current of death was now directed to the underworld, and from that time to the present man has flowed like water down Tahekeroa to Rarohenga. Tane remains in this world to produce and represent Life, while Hine-nui-te-Po remains in the underworld to receive the spirits of the dead, and represents Death, or Life in Death.

Although Hine represents death, yet is it the death of the physical basis alone; she is the preserver of spiritual life; she it is who protects the spirits of the dead in the underworld from the enmity of Whiro. Also these spirits are in an intermediary stage; they are disembodied but still visible, hence we see spirits of the dead abroad in this world; they are seen by the eyes of living man. In the course of time, however, the spirit passes through another change, and becomes more etherealised, so that it cannot be seen. *This* is the true spirit or soul of man, this is the *awe* of the *wairua*, the essence of the spirit.

The spirits of all persons who sympathize with the Earth Mother in her separation from Rangi, or with Hine-titama in her trouble, pass down Tahekeroa to Rarohenga (the underworld), irrespective of their character or acts in this world; there is no distinction. Nor is there any punishment of the human soul in the spirit world.

#### WHIRO VERSUS HINE-NUI-TE-PO.

Those who sympathised with Whiro when he was defeated by Tane in the struggle known as Te Paerangi, and descended with him into the underworld, are known as the Tini o Poheua and the Tini o Potahi. Those who cling to Hine-titama in the underworld are known as the Tini o Puhiaata and Parangeki. The realm of the latter is where spirits of the dead are saved and protected by Hine. (*Koia te kaupeka nui o Rarohenga i ora ai nga wairua, e kiia nei kua kapua mai e Hine-titama te waiora ki te ao nei, ara ka ora mai nga wairua katoa.*) Were it not for the protection of Hine, then Whiro would have consigned all these spirits to Tai-whetuki, the house of death, wherein abide Maikinui, Maikiroa, and other dread creatures. Thus Whiro and his horde ever wage war against Hine, who is the refuge of the souls of our dead.

Herein we see the old Persian beliefs and cult, and, what is of far greater interest, we see the making of religion, the groping of



the human mind seeking to understand the origin of man, the whence of the soul and its ultimate destination.

Such were the inner teachings, as taught to a select few, but never communicated to the people. Their conception of Hine-nui-te-po is as the destroyer, as seen in the saying, "*He ai atu ta te tangata, he huna mai ta Hine-nui-te-Po.*" Man begets and Hine destroys. Of a dead person it is said, "*Kua mau ia i te tauri a Hine-nui-te-Po.*" He has been caught in the snare of Hine.

It is clear that with Hine, either as Hine-titama or as Hine-nui-te-Po, the idea of beauty is connected, the beauty of the Dawn Maid. One of the old sages of the early part of last century held forth as follows on the subject:—"Now, about Hine-nui-te-Po, she possessed the appearance of a supernatural being, her eyes were as gleaming fire-flame, and her form a beautiful one. When she came forth from her house to remain without, fair beyond measure, was the light of her eyes. When she removed her clothing in order to bathe, her skin showed dazzling and beautiful. Her hair extended to her hips, and her general appearance was one of great beauty, hence the saying:—" *Ko Hine-titama koe, matawai ana te whatu i te tirohanga.*" ("You are like Hine-titama, the eyes glisten on beholding you.") Her bathing-place was Wai-mahuru, her house was Wharau-rangi; her home was Te Rua-tuwhenua, and her plaza Te Tatau o te Po.

In the well-known myth of Hine-nui-te-Po and Maui, evidently Maui represents Light or Day, and on entering Night of course perishes. Had he won in this contest, presumably darkness would have been abolished and Maui would have gained eternal life, or light.

A Polynesian myth tells us that Maui restored the sight of Hina, who had become blind. Evidently Maui restored light to the moon in this case. Maui was assuredly no man, no historical character, as claimed by some writers; he is a personification, as also are Whaitiri, Tawhaki and Wahieroa. Moui was one of the twelve gods of the second order in Egypt; he represented the splendour and light of the sun. At Niue and Tonga *moui* means "life" and "alive." The word is apparently allied to *mauri* and *mouri* = the life principle. At Rotuma *mauri* means "to live." At Futuna *tamauri* means "life." Maui seems to personify Life or Light.

## TE ARA WHANUI A TANE.

### THE BROAD PATH OF TANE.

We have seen that the Hawaiians called the West *ke ala ulu a Kane* (*Te Ara kura a Tane*), the red or gleaming path of Tane. The Maori of these isles tells us of *Te Ara whanui a Tane*, the Broad Path of Tane, which is the path by which spirits of the dead return to the

original homeland, whence they pass to the underworld. What is this path, where is it situated, and how shall the disembodied spirit seek it? It is the oldest path in the world; as the Maori puts it—*e hara i te ara hou*—as old as the first days of Tane; it is the trail all men must lift and traverse to its uttermost limit. It is the golden path of the setting sun, by which the spirits pass over the great ocean to the hidden land of Tane, and descend with him into that mysterious realm. Such is the *Ara whanui a Tane*, to which we farewell the souls of the dead, and which appears in the old, old saying:—" *He mata mahora no te Ara whanui a Tane.*"

The Broad Way of Tane is the gleaming sun glade, the path laid down by Tane for the souls of his descendants to traverse, to lead them on across vast ocean spaces, back to the homeland of the race and thence to the spirit world. Hence, in these words does a bereaved mother farewell the spirit of her dead daughter:—

"Haere atu ra, e hine, i te ara whanui  
A to tipuna a Tane-nui-ā-rangi,  
I takoto ai Tahekeroa; e hine—e—i."

("Fare on, O maid! by the broad path of your ancestor,  
Tane-nui-a-rangi, whereby Tahekeroa was established, O  
Maid!")

Tahekeroa is the descending path to the underworld.

In Rarotongan myth we see that spirits of the dead pass lightly over the vast ocean and sink with the sun into the underworld.

As old as the days of heart sorrow and of human love are the words of the lament:—

"Farewell, O maid! Tread thy path, the Broad Way of Tane  
that lies before, the path of your forbear, Hine-titama."

In Bank's Journal we read that, at Tahiti, Tane was much more generally invoked than Tangaroa, as he is supposed to be the more active deity. At Tahiti also occurs the curious double name of Rongomatane, or Rongo-ma-Tane, in the form of Ro'omatane, who was an important *atua* (god). By the same name was known at Tahiti a stone set up in a *marae*, and which was adorned with flowers. Rongomatane appears in Maori myth, mentioned as though it was the name of an individual god. Evidence connecting Rongo with the moon accumulates, and the name Rongo-ma-Tane appears to be simply "moon and sun," when the aspect of personification is considered.

At Mangaia Tane brought sight to the blind Kui, apparently he restored the light of the moon, and took to wife one of her fair daughters, "Hina who rivals the dawn."

## TANE CLOTHES RANGI WITH CLOUDS.

Tane observed the appearance of nakedness about Rangi, an appearance that was unpleasant. He therefore said to Tawhirimatea (personified form of winds), "Go you and procure the perspiration, the warmth of our mother Papa lying below, bear it upward and arrange it on the person of our father, Rangi, as a warmth giving covering for him." Then Tawhirimatea went and procured Te Ao tu, Te Ao hore, Te Ao nui, Te Ao roa, Te Ao pouri, and others (all cloud names), all of which are names of the warmth and moisture emanating from Papa on account of her lamentation for her husband from whom she had been separated. Such are the clouds above us.

## TANE AS THE PUNISHER.

A famous expert of the Whare-wānanga said to one of his pupils: "Should any person say that my teachings are false, then the sun shall wither him and the moon consign him to the underworld. For that person is not condemning me, but Tane-matua and the origin of such teachings."

## TE HAKA A TANE-RORE.

This denotes "the dancing of Tane-rore" an expression applied to the quivering appearance of air seen on a warm summer day. A Matatua myth has it that Tane-rore was the offspring of Ra, the sun, and Raumati (summer). The expression *Kua tu te haka a Tane-rore* means that summer has come, the dancing of Tane-rore has commenced.

A study of Maori mythology and religion has the effect of directing the attention to the Oriental aspect of Maori mentality, so close a resemblance is there between the concepts of the peoples of southern Asia and those of the Polynesian race. Thus we find in Indian myth the story of the demons of Darkness being vanquished by the Shining Ones and driven down to the underworld, the counterpart of our Maori myth of the contest between Tane and Whiro. The *haka* of Tane-rore is the "sun dance" of India and Europe. Brahmā, the Creator, was symbolised by the rising sun, even as the demiurge Tane was. The lingam employed as a symbol of the Creator was used in Polynesia to represent Tane, where such symbols were of stone, and to which curious honours were paid. Siva represented the setting sun and destructive power, as also did Tu in Maori myth. Vishnu supports the heavens, and his bride is the Dawn Maiden Ushas, while he represents the sun at noon. He recalls Tane the supporter of the heavens, who long sought the *uha* or female element.

## TANE AS THE SOURCE OF KNOWLEDGE.

A curious fragment conserved in the White MSS. is the following:—

“Kotahi tangata ki Hawaiki ko Whakatau anake.  
Kotahi tangata ki Aotearoa ko Tama-uawhiti, ara ko  
Tama-nui-te-ra.”

This looks as if Tama-uawhiti was another name for the sun. The explanation following it fails to make things clear—“Whakatau was a warrior, the equal of Oipiriwhea. Tama-uawhiti equals Whakaahu; another of his names is Hiringa, denoting a mind assiduous in the seeking of knowledge, industry in procuring or cultivating sustenance for the body, and other important tasks; the source of knowledge (*ko te puna o te matauranga*).”

Oipiri, Opipiri, or Oipiriwhea seems to be a term applied to winter (probably a reference to the star Pipiri). Whakaahu is a summer name and a star name. These two and their attendants are ever contending with each other, but neither wins a permanent victory. It seems to express the fact that Hiringa (mental alertness and assiduity) is a name for the sun, which is the source of knowledge. One of the names of Tane is Tane-i-te-hiringa.

We have seen that it was Tane who obtained the three baskets of the *wananga* or esoteric knowledge for the benefit of man. The Maori, like the North American natives, appears to have looked upon the sun as the symbol of intelligence. An old East Coast Maori once remarked to the writer that the West Coast natives could not possibly possess so much knowledge as those of the eastern side of the island because they were further from the sun.

It is a curious fact that the three ordinary names for the sun, *ra*, *komaru* and *mamaru*, are also applied to a canoe sail. It is difficult to see any connection between the two.

The following song is an *oriori*, a nursing song, composed by one Te Takai for his grand daughter. It is absolutely packed with references to Maori myths, including that of Tane and Hine-titama:—

“Naumai, e hine! Ki te ao tu roa a to tipuna, a Tane-matua  
I tiki ai ki roto o Matangi-reia i a Io mata ngaro  
I roto o Rangiatea e whata ana  
Mauria mai nei ko te kete tuauri, ko te kete tuatea,  
Ko te kete aronui, e hine!  
I te ara tiatia i he ai Whiro te tipua  
Kake noa tera i te ara taēpa, te kite, te aha  
Koia tarahau o nga puhi o nga rangi, e hine . . e!  
Ka kawea mai e Tane-nui-a-rangi, e nga whatu kura  
Ki roto o Wharekura nei whata ai te wananga, e hine!

Ka waiho hei ao marama ki taiao nei, e hine . . e!  
 Koia i tipu ai te tarahau, te hinana na  
 Tau ke ati nuku, tau ke ati rangi i konei, e hine . . e!  
 Ka kutia te po, ka kutia te ao, ko te Paerangi tenei, e hine . . e!  
 Koia i noho ai Tane i a Hine-titama i konei, e hine . . e!  
 Ka titamatia te po, ka titamatia te ao  
 Ka uia i reira e Te Kuwatawata  
 E haere ana koe ki whea, Tane-te-waiora . . e?  
 Ka uia, E hine! Haere ana koe ki whea?  
 Ka mea a Hine—Kei whea toku matua e ngaro nei i au . . e  
 Ka uia ki nga poupou o te whare, kaore te ki mai te waha  
 E mate ra i te whakama, ka konau haere i Whiti-a-naunau  
 Ki marae nui o Poutere-rangi.  
 E ohomauri ana a Tane, ka atiu i waho ra o Hui-te-ana-nui  
 E hokai ana koe ki whea, e Tane tikitiki . . e!  
 Ka pa mai te waha-ki te whai atu i ta taua nei puhī, e hika . . e!  
 E hoki, tangohia e koe i nga tupuni o Wehi-nui-o-mamao  
 Ko hihira ki uta, ko hihira ki tai  
 Ko pari nuku, ko pari rangi  
 Tikina e koe ki te kahui whatu punga nei . . e  
 Ko Takurua nei . . e; Meremere nei . . e; Autahi ma Rehua  
 nei . . e  
 He ariki no te tau ka wehe nei . . e  
 Ka tau mai ko Whakaneke-pungarehu nei . . e  
 Ko Uaki-motumotu nei . . e  
 Hei tupa i a Wero-i-te-ninihi . . e, Wero-i-te-kokota nei . . e  
 Ka puta i konei o raua tuahine  
 A Wero-i-te-marie, a Wero-i-te-ahuru . . e  
 Koia te wero i te mahana . . e  
 I tataia ki te pohō o Rangi-nui  
 Koia Tama-nui-te-ra, e hine . . e!  
 Ka haere wareware atu na koe . . e  
 Koia i tau ai te haere i te ao turoa, e hine . . e . . i!  
 Ka wehea te po i konei, te ao i konei  
 E hine aku . . e . . i!"

This song is a good sample of such productions and illustrates a common Maori usage. Songs composed as lullabies and nursing songs often teemed with allusions to incidents in tribal history, myths, etc. This was a form of teaching apparently; it familiarised even very young children with names of tribal heroes, etc. The old grandfather addresses the child thus:—"Welcome! O maid, to the enduring world of thy ancestor Tane, he who entered the sacred places of the uppermost heaven and obtained from Io, of the Hidden Face, the three baskets of sacred knowledge, O maid: brought hither by the



wondrous path where Whiro was foiled; he who sought to ascend by scaling the side of the heavens; who gained nought, and who was assailed by turbulent winds." He then refers to Tane bringing the baskets of knowledge to earth and depositing them within the sacred place Wharekura, whereby they became a treasure and an enlightening agent in the world. Also to the long contest between Tane and Whiro, the advent of the Dawn Maid, the dividing of night and day, the descent of the Dawn Maid to the underworld, and curious fancies connected with the stars.

It is now high time to conclude these reflections on Maori myths, these peerings into the mind of barbaric man, lest weariness assail the hapless reader, and wait upon excess. These myths and mythopoetical fancies serve to illustrate the peculiar activities of the mind of neolithic man in striving to fathom the origin and meaning of all he saw, and the singular genius for personification that is so marked a characteristic of the Maori race. That strange plane of mentality has been passed by us, and never again shall we see with the eyes of the old myth makers.

As the men of yore said:—

*"Ka riro he au heke, e kore e hoki ki tona mātāpunu ano."* ("A flowing stream will never return to its source.")

# THE FALL OF TE TUMU *PA*,

NEAR MAKETU, BAY OF PLENTY, NEW ZEALAND,

MAY 9th, 1836

## AND ILLUSTRATIONS OF SOME MAORI CUSTOMS OF THE LONG AGO.

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BY S. PERCY SMITH.

THE taking of Te Tumū *pa* has some celebrity attached to it in Maori Annals, but it presents no particular feature of great interest so far as the story of the siege related herein is concerned. Some of the accompanying incidents throwing light on old Maori beliefs and customs will have more to recommend them to the student of Maori lore.

The Kaituna River, which carries off the surplus waters of Lake Rotoiti, after a northerly course of some twenty-five miles comes within a short distance of the coast of the Bay of Plenty, and then turns abruptly to the east for another five miles and falls into the sea at Maketu. A short distance within its mouth, on the eastern side, is where the "Arawa" canoe landed after its long voyage from Tahiti in the fourteenth century; and here she was burnt by Raumati of the West Coast tribes. The eastward bend of the Kaituna runs parallel with the coast, leaving a long peninsula about a mile or less wide, which is low and with sand-hills on the coast itself. Not far from the commencement of the easterly bend the Papamoa hills come down to the flat land, and within a mile or so to the east was situated Te Tumū *pa*. built on the flat, not on a hill as Maori *pas* usually are, and which was fortified with palisades and ditches.

The following account of the siege of the *pa* was dictated to me by Tarakawa in October, 1900, and written down in Maori shorthand at the time. The original Maori is not given, but the translation is as faithful as it can be made. The story commences with the reasons that actuated Te Arawa tribes in attacking the *pa*, and the exact date of the fall is derived from the "Life of Archdeacon Henry Williams," who was at Maketu at the time, vainly endeavouring to stop the bloodshed that was taking place.

Tarakawa says—The battle of Mataipuku (which took place just to the west of the present town of Rotorua) was caused by the murder of Hunga, of the Ngati-Hana tribe of Waikato, by Haere-huka\* of

\* See the origin of this family name—"J.P.S.," Vol. XXV., p. 163.

Te Arawa tribe near Ngongotaha mountain, Rotorua. (This event took place 6th August, 1836, see J. A. Wilson's "Life of Te Waharoa.") When the news of the death of Hunga reached Te Waharoa, chief of Ngati-Haua, at his home at Matamata, Upper Thames Valley, messengers had also just arrived there from the Ngai-Te Rangi chiefs of Tauranga, from Taipari and Tutae, asking Te Waharoa to join them in attacking Te Arawa tribe and avenging Hunga's death. This was agreed to and Ngati-Haua proceeded to Tauranga, where they were joined by Ngai-Te-Rangi, and the *taua* then went on to Maketu, where they defeated the Tapuika branch of Te Arawa, at Te Totara, killing a chief of the former tribe named Kato-hau. The *taua* then attacked Maketu, took the *pa*, 29th March, 1836, and killed two chiefs named Te Haupapa and Te Ngahuru of the Ngati-Whakauē branch of Te Arawa tribe. After this the *taua* returned to Tauranga, and the Ngati-Haua to Waikato.

Some time elapsed and then Ngati-Haua advanced on Rotorua, and the battle of Matai-puku took place, 6th August, 1836 (as referred to above), and the local people, Ngati-Whakauē, were beaten losing a chief named Matai-awhea. On the same day Ngai-Te-Rangi (of Tauranga) suffered defeat at Rotoehu Lake (lying to the east of Rotorua), at the hands of Te Arawa, and lost two chiefs named Rangihau and Tawhiwhi. After the defeat of Ngati-Whakauē at Matai-puku, Ngati-Haua returned to their homes at Matamata.\*

Te Kahawai, chief of Ngati-Rangi-wewehe (of Rotorua) felt very deeply the death of his nephew Te Ngahuru at Maketu (as related above), and, determining to avenge him, raised his tribe and departed for the coast, occupying the *pa* of Otawa at Te Puke, some three or four miles south-west of Te Tumu *pa*, awaiting there for reinforcements to assist in the attack on Te Tumu. After he had left Rotorua Hikairo, of Te Arawa tribe, felt it his duty to help his elder relative Kahawai, and for that purpose proceeded to Rotokakahi Lake where dwelt the Tu-hourangi branch of Te Arawa, to secure their assistance. At that place was Taumaia, wife of Te Amohau,† (and through her influence) the people agreed to join in the war against Ngai-Te-Rangi (of Tauranga). At this period Te Tumu *pa* had been occupied by Ngai-Te-Rangi. A great assembly of Te Arawa took place at Te Ngae (on the east shore of Rotorua) preparatory to an advance to the coast; there were some 800 warriors altogether gathered there. On starting, Ngati-Whakauē proceeded by way of Te Kaharoa (along

\* Tarakawa has somewhat mixed up the order of events here, for Matai-puku took place after the fall of Te Tumu, not before, as his narrative would lead one to suppose.

† I knew Te Amohau in 1880, then a very old man probably over ninety. It was through his influence the present town of Rotorua was laid out. He was not a tall man, but very much tattooed, and of great influence with the Arawa tribe.

The old Maori track now followed by the coach road from Rotorua to Maketu), while Te Arawa proper, travelled by Te Iwiroa track that comes out at Rangiuru behind Te Puke, and on their arrival joined those under Hikairo, who with his party had gone a long way round, even as far as Matamata, the home of Ngati-Haua, where they had fired some volleys in defiance, and then made their way over the ranges by Te Wairere Falls (along the old Maori track from the Thames Valley to Tauranga Harbour) and on to the Wairoa River which falls into Tauranga Harbour), where they fell on and killed some of the local people, the Ngati-Hangarau. They also found some of the Ngati-Raukawa tribe (of Waikato) there, but their lives were saved by Tarakawa (father of my informant) and Tara-mataki-aki of Ngati-Rangi-wewehē (Te Arawa). And so this party came on and joined their forces to the main body of Te Arawa at Te Puke.

When the whole of the army was assembled at Te Puke, a great war-dance was performed in order to learn if a *korapa* would occur or not. (The *korapa*, is the same as a *kohera*, referred to in a former paper, "Journal Polynesian Society," Vol. XXVII., p. 212, and means an evil omen.) This is the *puha*, or song, accompanying that war-dance:—

Ka tito au, ka tito au,  
Ka tito au ki a Kupe,  
Te tangata nana i hoehoe te moana,  
Tu ke a Kapiti, tu ke Mānā,  
Tu ke a Aropaoa,  
Ko nga tohu tena a toku tupuna  
A Kupe; i hoehoe te moana,  
Ka taraki te whenua i a au—ē.

I will sing, I will sing,  
I will sing of Kupe  
The man who paddled over the ocean.  
Kapiti and Mānā separately stand,  
Aropaoa (South Island) is divided off.  
Those are the signs of my ancestor  
Of Kupe, who sailed over the ocean.

(Apparently there were no evil omens.) A model of Te Tumu pa was now made in the earth, when it was seen that there were three entrances, the outer, or seaward one of which was held by Werohia of Ngai-Te-Rangi; Tareha of the same tribe guarded the middle one; Tikareia and Tupaea were on guard at the inland one at Te Paika, being the Kaituna River. The pa was a *tuwhatawhata* (palisaded) with double lines of posts, with ditch and bank, and within the pa were 300 of Ngai-Te-Rangi as defenders.

Hikairo now arose and said, "Listen to me, O 'Te Arawa! I will take the middle part of the *pa*." Then 'Te Rangi-puawhe (father of Kēpa 'Te Rangi-puawhe of 'Tu-hourangi clan, who died a few years ago) said, "I will take the head of the *pa*" (that held by Werohia). Then arose 'Te Anuhau and 'Te Puku-atua and Haere-huka and said they would take the *huke* or back part of the *pa*. And then 'Te Arawa forces arose in the evening preparatory to the attack. But before doing so, the god Weka was sent on to observe the conditions at 'Te 'Tumu *pa*. That god was sent by its *kaupapa*, 'Te Kahawai, to observe the *pa*. The god went and returned. If it had not returned things would have gone wrong, but as it did return it was known the *pa* would be stormed, and many men killed.

[I break off the narrative here to offer a suggested explanation of the despatch of the *atua* (god) to spy out the condition of the *pa*. My informant could give no explanation, merely saying that the story was as it was told to him by his elders. Had I, at that time, been aware of the probable explanation of this and many similar occurrences in Maori history, possibly I could have obtained some useful information to support the view now to be explained. In the first place *kaupapa* is the guardian, keeper, medium of communication between the gods and men in the person of a *tohunga* or priest, of which Kahawai was one. The study of traditions from all parts of Polynesia, for many years past, has forced on me the belief that the most learned men of the race (who were the priests and chiefs) were acquainted with some branches of the science of Psychology, such as Hypnotism, Telepathy, Clairvoyance, Trance, etc. Of the practise of these branches of psychics many illustrations might be given, as they appear to me, and I think the particular case we are dealing with comes under the heading of hypnotic trance, in which the *kaupapa* can project his subliminal or subjective mind to any distance and behold whatever is passing at such distant spot. There are thousands of known instances of this power, all undertaken under conditions excluding any possibility of fraud. For instance, Mr. T. J. Hudson in "Psychic Phenomena," says of the self-induced hypnotic state, "In this state many of the most wonderful feats of the subjective mind are performed. It sees without the use of the natural organs of vision; and in this, as in many other grades, or degrees, of the hypnotic state, it can be made apparently to leave the body and travel to distant lands and bring back intelligence, often times of the most exact and truthful character."

I have been told (though I never witnessed it myself) that when the *tohunga* is about to enter into the state during which he professes to communicate with the gods, that he is in a quite abnormal condition of mind and body; the eyes staring, the limbs somewhat convulsed, sometimes foaming at the mouth, and presenting quite a



different appearance to his normal condition, afterwards suffering from great apparent exhaustion.]

The Arawa *taua* then advanced by way of Kainga-pakura, near the Papamoa hills, and so by the Tauranga or western side of the *pa*. By sunset they had reached Te Kopua, where the *taua* was asperged with water by the *tohunga* Te Kahawai. [This refers to the *tohi-taua* ceremony in which the priest sprinkles water on each warrior with a branch of *karamu* tree, repeating a *karakia* over the men at the same time. It is called the "Baptism of War."] And then the god Te Weka came to the priest and said, "*E te he! E te he!*" [An expression couched in the usual cryptic language common to communications from the gods—witness the old Greek oracles—and which is very difficult to translate into English, and at the same time render its intended meaning. "O the wrong! O the trouble!" seems to be its meaning, and this is supported by the medium's interpretation to follow.] Then Te Kahawai (the *tohunga*) announced to the eight hundred, "The *pa*, Te Tumu will fall; you will prevail over your enemy; but I shall be the payment therefor."

Then the *taua* advanced to Te Whakarauhe (about 30 chains from the *pa*), and there the forces separated to the sides assigned to them at the three different points of assault, at about three hours of the morning. The Tu-hourangi and Ngati-Rangi-wewehe were met by musketry fire, and several fell. Tu-hourangi made several assaults, and then they were exhausted, for thirty-seven of them had fallen, including one of their chiefs, Kanohi-mohaoa, which caused them to retire to a sand-hill and remain inactive. Then Werohia (of the garrison) launched an attack or sortie against Ngati-Rangi-wewehe, after having just heard that Tareha of the *pa* had been killed, and hence he made his assault against those of the party attacking the centre of the *pa*. And now fell Te Kahawai (as he had predicted) with three bullets through him; A shout arose, addressed to Hikairo (of Te Arawa), "Te Kahawai and Tamina (of Ngati-Rangi-wewehe) have fallen!" Then arose Hikairo in the midst of his people, grimacing and shouting his *ngeri* (or war song):—

Homaïto whirikaha, to torokaha!

Kia wetewetea, ā tē! ā tā! ā tāū!

Now Ngati-Rangi-wewehe turned upon the charging party from the *pa*, drove them back, entered the *pa*, and reached the far side of it. Thus Te Tumu fell, and Ngai-Te-Rangi were defeated; and Werohia, Tareha, Whare-pohue and Rore were killed. On the fall of the *pa* several escaped and fled—Tupaea, Takarangi, Rangi-pokia, Makiti, Te Mutu-takupu, Taipari, and Tutaki, chiefs of Ngai-Te-Rangi—they fled towards Tauranga, and were followed by Te Arawa, but the most of them escaped; only Hikareia was caught, who was killed

at Te Houhou near Wai-rakie (on the beach) and hence was Wai-rakei afterwards determined on as a tribal boundary at the very place where Hikareia was killed (see below).

Tareha was killed by 'Te Uru-kehu of Ngati-Rangi-wewehe, and Whare-pohue by Kaingaroa and Tu-karanga. Ngai-'Te-Rangi lost seventy killed, and Te Arawa lost forty-three.

After the fight, the "Ika-a-Tu" (the victims of the war-god Tu) were consumed, and on completion of the "feast" the Arawa forces returned to Rotorua. The following is one of the laments for the priest 'Te Kahawai:—

Ka ngaro ra—e—	Now alas! is lost!
A Ngati-Rangi-wewehe,	The Ngati-Rangi-wewehe tribe,
Nga toetoe-tarahae	The rasping-edged <i>toetoe</i>
Na te aha i tukituki?	By what means was it stricken?
Na te tapatē	By gales from the sea,
Ki waho ki te moana—i—.	From out yonder on the ocean.

Tarakawa told me also that Hikareia (see above) was quite an old man at the time of his death and had, in his time, been a great warrior. He escaped with some others from Te Tumu *pa*, and ran along inside the sand-hills, which here line the coast, towards Tauranga. Tarakawa (senior) and some of his particular clan were in chase, and when the old man saw them close upon him, he turned off to the beach at Te Houhou near Wai-rakei, whilst his younger companions, after vainly endeavouring to persuade the old man to continue his flight, fled on towards Tauranga. Arrived at the beach the old man threw off his garments and made off out to sea, hoping thus to escape Tarakawa. Te Amohau and Nikahere got on to the beach just as the old man rushed into the tide. But a heavy breaker knocked him over and washed him ashore again, where Nikahere seized and was about to kill him, but Tarakawa struggled with him for the possession of the old man, which he succeeded in doing, and then killed him. His body was dragged up to the sand-hills, where Tarakawa took the flint out of his musket, cut the old man open, took out his heart, etc., and then proceeded to roast and eat it, with the help of the others present.

Hikareia was thus killed in revenge for deeds done long ago, and the following is the story about it: The death of Te Rangi-i-tahia, of Ngati-Awa of Whakatane, was the reason that Hikareia was killed by my father Te Ipu-Tarakawa. In former times Rua-moana, of Motiti Island, killed Te Rangi-i-tahia because of envy due to the possession, by the latter, of some small islands named Motu-nau and Motu-haku in that part of the Bay of Plenty celebrated for the *Oi* birds, used as food, and also because of his ownership of the *Hapuku* (a fish) grounds named Te Paru, Matau-whati, Hanea, Pakura-nui,

Matara-kutia and others. These *toka* (rocks) are off Maketu and Wai-rakei. Te Rangi-i-tahia held the *māna* (authority, rights) of the whole of these rocks—as evidence of which may be quoted the proceedings of the Native Land Court held at Tauranga, in which Tupaea (of Ngai-Te-Rangi) acknowledged Te Rangi's right to the islands and the fishing rocks. Originally they belonged to the children of Hine-tapu, mother of Rauru, my ancestor.

Old Te Rangi-i-tahia, and his young men, on one occasion put forth to fish for *hapuku* off Hanea and Matau-whatī, when they were overtaken by a southerly storm, and driven before it to Motiti Island, and succeeded in landing at Mata-rehua on the shores of that island. As soon as they landed they were seen by the people of the *pa*, by the Ngati-Tauwhao clan of which Rua-moana was the chief. A shout was raised, "There is a canoe on the beach with five men in it." At once Rua-moana knew it must be Te Rangi-i-tahia's people from Maketu, for at that time he was living in the *pa* Pekerau at Maketu.

Rua-moana gave orders to light a native oven, and when it was ready Te Rangi-i-tahia and his companions were fetched, and on arrival at the *pa*, alongside the oven Rua-moana gave the order, "Cast him into the oven!" The old man was knocked down and thrown into the oven together with his companions. The old man squirmed on the oven until he and all of them died, and finally they were eaten by Ngati-Tauwhao.

This death—this murder—remained unavenged for a long time, until it was almost forgotten, indeed it was not known what had become of Te Rangi and his companions; it was thought they had perished in the storm, until, in fact, Rua-moana's grandson Hikareia grew up. Rua-moana's daughter was named Tokerau, and she married Tarake, and their son was Hikareia.

Now sometime after the murder Hine-hurīhia heard of it from Ngati-Pukenga, when at Whangarei. She (Hine-hurīhia) was taken prisoner by the Ngati-Maru tribe of the Thames when they took the Pekerau *pa* at Maketu, and was carried away to Hauraki, where she was with Ngati-Maru in the *pa* at Te Totara (a little south of Shortland),\* when Hongi-Hika besieged and took the *pa* in December, 1821, and she was captured with many others by Nga-Puhi and Ngati-Pukenga, which latter tribe was assisting Hongi at that time. Hine-hurīhia eventually got back to Maketu, where she informed the Arawa chief Hikairo, and his younger brothers, of the murder. She told them the story secretly, saying, "Let our ancestor's (Te Rangi-i-tahia) death be avenged by you. He was murdered at

\* See account of the taking of this *pa* in "Maori Wars of the Nineteenth Century," p. 190.

Motiti by Rua-moana." For Hine-huriria was also a grand-daughter of Te Rangi-i-tahia.

This brings us to the date of the fall of Te 'Tumu pa, May 9th, 1836, as related above. As Tarakawa (senior) was following up the fugitives, he shouted out to Hikareia, "My *papa!* (elder relative) I shall not consider you. Thine were the deeds of darkness, so will be mine." (Referring to the murder by Hikareia's grandfather.) As soon as Hikareia was killed, Tarakawa took out and swallowed his eyeballs (a frequent custom in cases of revenge), then cut out his heart, which was also eaten (as related above). And now Tarakawa felt satisfied that the death of his grandfather, Te Rangi-i-tahia, had been avenged.

Now, when Tupaea, of Tauranga, learned that Tarakawa had eaten the body of Hikareia, and having also heard the lament composed by Tāmāku (see *infra*), he started off by canoe in the night for Whakatane to visit Toehau. On his arrival he said, "O Sir! What was the reason my grandfather was eaten in the broad daylight?" Said Toehau, "Who of Te Arawa was it that ate Hikareia?" Tupaea replied, "It was Te Ipu-Tarakawa." Then said Toehau, "It was quite the correct thing to do! It was done to avenge the death of Te Rangi-i-tahia who was cooked alive in the oven by Rua-moana." Tarakawa was a descendant of Te Rangi-i-tahia. Said Toehau, "*He po tāu! he awatea tera! he mutunga pukana i te awatea, i te ra e whiti ana!*" ("The deed of (thy ancestor) was one of darkness (treachery); the other (death of Hikareia) was done in the daylight, after open warfare, under the shining sun." To this Tupaea replied, "When I return I shall take away from Tarakawa his wife Te Whakau-mata, my cousin."\*)

The meaning of Tarakawa's address to Hikareia (*My papa!* I shall not consider you, etc.—see above) is this: He was referring to their relationship, for both descended from Ikapuku who married Ikapare of Ngai-Te-Rangi, and their son was Tauwhao the eponymous ancestor of the tribe that killed Te Rangi-i-tahia.

The following is the *apakura*, or lament, for Hikareia composed by Tāmāku, a lady somewhat celebrated for her poetical composition:—

Taku whakatakariri,  
Taku honohonoa,  
Ki tutahi koia e ora roa,  
He tangata i te mahara,  
Taipari whiuwhiu korero,  
Ki Wāikāto ra—e—  
Ki a Te Waharoa,  
Te ahu ra uta ki te whare kai-kino

\* Fourth cousin once removed, according to the genealogical table.

Ki a Huka, ra—e— (Haere-huka)  
 Hoki ke mai nei  
 Ki Te Paki-no-ruhi,  
 I horahia ra hoki,  
 Moe wāre i te hau,  
 Me ko Te Haupapa,  
 Me ko Te Ngahuru,  
 Te puhi o Te Arawa,  
 No reira te hoa,  
 I huripokina ai,  
 Koutou ko ou tamariki  
 Taku waka whakarei  
 Tena ka paea,  
 Ki roto o Te Houhou  
 Mate ika warehou  
 Na Tarakawa te kai,  
 Ma Te Heru, ma Te Riuwaka,  
 Ma Koroiti tana angaanga.  
 Ki roto o te kohua, i.

The following story was told by the same informant in May, 1901, and as it illustrates Maori customs and ideas, it may find a place here, especially as it has reference to Te Rangi-i-tahi who was murdered at Motiti Island as related above.

Te Rangi' at this time was living at the Puketapu *pa*, situated on the east side of the Whakatane River, and just above that great mass of rock called Pohatu-roa, that projects into the river leaving just space enough inland of it for the present main road to pass. Puketapu has been a strong place in its time, with the usual fosses and ramparts, with precipitous hill-sides sloping away from it.

As already noted, Te Rangi' was a chief of the East Coast Ngati-Awa, whose head-quarters are around Whakatane, into which river entered the "Mata-atua" canoe that brought their ancestors from Tahiti in the fourteenth century. He married Te Kapua-i-rangi (the cloud-in-heaven) of Te Whanau-a-Apanui, a tribe living a few miles further along the coasts of the Bay of Plenty to the eastward. As time went on Te Rangi' suspected that his wife was not faithful to him, and had an intrigue on hand with one named Whakapiki-rangi.

A day came when all Ngati-Awa crossed the broad river (here half-a-mile or more wide) taking their fishing-nets with them in their *haka-taurua*, or double canoes,\* to await on the sandy opposite shore a favourable opportunity to put to sea. Te Rangi' told the people he would follow later on if they left one of the (smaller) canoes for him.

\* This statement as to the use of double canoes in the Bay of Plenty, as late as four generations ago, is interesting.

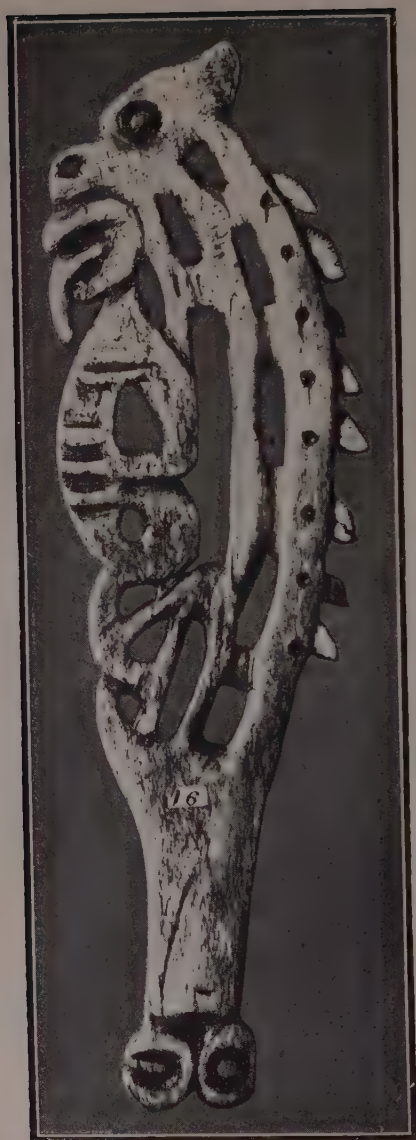


As the night fell, Te Rangi' retired to his house in Puketapu *pa* with his wife, having first made a rope fast to the sliding door in such a manner that he could close the door from his sleeping place under the window. His wife who occupied the *tuarongo*, or back part of the house, after a time said, "I thought you were going across the river after the people?" Te Rangi' in reply merely raised his head, but made no other reply. Presently he heard a footstep outside the door, and then a tap on the door, but as there was no answer the intruder—who turned out to be the lady's lover, Whakapiki-rangi, who having heard Te Rangi's words to the people, thought the coast was clear—pulled back the door and stooped down to enter (for all doors in the Maori houses of former times were generally not more than three feet high). No sooner was his head inside than Te Rangi' suddenly pulled tight the rope, and thus caught the intruder by the neck, and jambed him between the door-post and the door. There he struggled in vain, but the door was fastened too tightly for him to escape. It was not until the blood issued out of his mouth, nose, and ears that Te Rangi-i-tahia released him.

In the morning the fleet of canoes returned and landed at Otua-whaki (the projecting mass of flat rock now used as a wharf for the coastal steamers trading to Whakatane), and commenced unloading the great haul of fish they had secured. Te Rangi' looking down from the *pa* above called out, "*Ngati-Awa e! I muri i a koe ka hinga taku parekura; ko Whakapiki-rangi!*" ("O Ngati-Awa! After you left I gained my battle; it was Whakapiki-rangi!") On hearing this, a great shout arose; for others had suspected what was going on between the lady and her lover. Whakapiki-rangi's father was with the fishing party. He called out in reply, "It is well! If my son had been killed in stealing food it would be a disgrace, but stealing a woman is different." Whakapiki-rangi who was not killed only much hurt, was then fetched by his people from the *pa*, and his hurts attended to.

Ngati-Awa as a tribe resented the words of Whakapiki-rangi's father, as a slight on themselves, so expelled all the Whanau-a-Apanui people from Whakatane.





TE KOROTINI.

## "TE KOROTINI."

### A SHARK-TOOTHED WHALE-BONE IMPLEMENT.

BY GEO. GRAHAM.

THIS tribal heirloom, together with several other family antiquities of the Ngati-Paoa tribe, recently came into my possession. Apart from its very interesting history, its unique workmanship justifies its description in the Journal. A reference to some Polynesian related types may also be of interest.

#### CONSTRUCTION.

Unlike all hitherto recorded implements of its class "Te Korotini" is made of whale-bone. The teeth, which are those of the *Kuatini* shark, instead of being lashed into position, are firmly cemented into position with some preparation—the exact composition of which is now probably unascertainable. The only other recorded specimen in which the teeth were so fixed into position with cement is one mentioned by Hamilton who described one of a series of these implements in the British Museum thus:—

"In the specimen which is best carved and probably the oldest, the teeth appear to be fastened with a natural gum or cement."  
"Maori Art," p. 252, Plate 34, Figure 1.)

Another notable feature of "Te Korotini" is a series of holes along its outer edge which are plugged up with the cement in question, giving them the appearance of ornamental spots. These holes were, however, originally perforated to enable the insertion of the usual flax lashing. The cement was probably used at a subsequent time, when some person acquainted with its preparation fixed the teeth as they stand at present.

As to the nature of this cement, I could get no intelligent account from the natives. It is so hard, and has set so firmly, that only injury to the implement would result in tampering with it.

I could only gather that such compositions were made from vegetable gums from the base of the flax leaf, the *hinau* sap, etc. These were gathered at a particular time of the year, and were mixed in proportions now unknown. The making of this cement has long been a lost art. Its very name is uncertain; *whaka-piri*, is given to me for such is very unconvincing and means merely to make fast or join, to cause to stick together."

## SOME REMARKS BY TUKUMANA TE TANIWHA.

I am indebted to Tukumana for the following information as to these obsolete implements. He is a grandson of the famous Te Taniwha (Hook Nose) and is well versed in the history and ethnology of his people.

"Mira-tuatini" is the name of such tools as 'Te Korotini. The teeth are those of the *tuatini* shark, and are fixed with a composite gummy matter formed of several different tree gums or saps (*para-rakau*). This mixture was gathered by the old men from special trees only, and at a certain time of the year as to one tree, and another time of the year as to others. The details of its mixture I never knew, but it was mixed into a semi-fluid state in a stone bowl. When it was ready all the objects to be treated were done quickly, for the gum would not keep long plastic, and a fresh lot must be prepared when more was required. Its name was *mira*, hence the name "Mira-tuatini," but this was the name even when only fibre fastening was used. A family might have such a one so fastened with *muka* fibre, and await until an opportunity came to take it to a cement-making artist. This cement was also used for setting the *pawa-shell* ornamentation into wood, bone and greenstone objects.

A *mata-tuatini* is a tool of the same type. The name means "obsidian toothed." They were less prized than the real *tuatini*, for although in many districts *mata-tuhua* (obsidian) was even rarer, it was more troublesome to keep fixed in position and was very quickly blunted. *Mata-kautete* was really the correct name for the *mata-tuatini*.

*Tutere* or *tatare* was an implement of the same type formed from the teeth of the *tatere* (dog-fish), but was less prized than the *tuatini*. Another type of this implement was much longer, but with the teeth similarly set in cement. It was known as *haehaeroa* (long slasher or slicer). Also *tutere-roa* or *tuatini-roa* according to the nature of its toothed edge.

\* \* \* \*

Tukumana's reference to *mira* as a name for this vegetable cement is interesting. Tregear in his Comparative Dictionary, in defining the Tahitian equivalent, says—"Mira = to put pitch or gum on the points of Tahitian arrows, to dress the head or hair with gum or oil." *Mira* is also the Maori equivalent for any kind of thread. The European cotton is so called in Maori households. To bind any object with thread or fibre is *whaka-mira*, as distinct from sewing which is *tui* or *tui-tui*.



#### THE USES OF THESE IMPLEMENTS.

As to the use of these implements, Colenso's description is probably the most reliable. In his uncompleted Maori Lexicon, Colenso gives *aha* or *ahaha* as meaning “a sharp cutting implement or saw made of shark's teeth (*tatare*) firmly fixed laterally into a prepared piece of wood, formerly used by the Maoris in cutting off a large shark's head (*mako*) when hooked at sea and brought alongside their canoe. Also used in cutting up whales, human flesh, etc., and taken by them to battle for that purpose.”

The old people of the Ngati-Paoa informed me that this type of implement was also used in decapitating the enemy slain. When persons died a distance from home, or on a war expedition, their heads would be severed by their friends and the bodies entirely incinerated to prevent the bones being secured by the enemy. Such heads would be brought home to their respective families. These implements would also be used by women folk at mourning ceremonies to demonstrate their grief for the departed by gashing their bodies.

#### THE ORIGIN OF TE KOROTINI.

It is stated that “Te Korotini” was made by an artist named Tau-hangi in the times of Te Wharetuoi, about 1725 A.D. He was of the Ngati-Whanaunga people of Wharekawa. It was formed from the bone of a whale which was stranded at Toka-roa (Long Reef), also called Te Ara-pekapeka-a-Ruarangi (The entangled pathway of Ruarangi). It would appear that this tribe were on their annual summer shark-fishing visit to the Waitemata, when the whale was seen by them from their camp at Onetaunga (near Kauri Point). A canoe party at once set off and secured the prize. In olden days whales frequently visited this harbour and became entangled on the above and other reefs. There have been several instances in recent times; one large whale even visited the Upper River and came to grief there some few years ago.

#### SOME HISTORY CONNECTED WITH TE KOROTINI.

In the days of Te Tiwha, son of Te Wharetuoi, there was much warfare between Ngati-Whanaunga and Ngati-Paoa. “Te Korotini” then fell into the hands of Ngati-Paoa under the following circumstances. About 1760, A.D., the Ngati-Paoa beseiged the Ngati-Puku, (*hapu* of Ngati-Whanaunga) in their *pa* at Tapapakanga (on the Wharekawa foreshore) at what is known nowadays as Ashby's. The Ngati-Puku with the connivance of some of the Ngati-Paoa chiefs, escaped by night and fled inland. They left several old people in the *pa*. One of these was one Te Korotini, who was slain. He was wearing suspended round his neck this historic

implement. Hence it got its full name "Te Kaki-haehae-o-Te-Korotini" (The slashed neck of Te Korotini), descriptive of that old man's fate.

When the Tamaki *pas* were besieged by Ngapuhi (in 1821, A.D.), the Ngapuhi chief, Rewa, being anxious to save the doomed people, came by night to the ramparts of Maunaina and urged the Ngati-Paoa to escape forthwith, as the *pa* would be assaulted at dawn. The chief Rauroha and others decided to accept the hint, among the escapees being Te Whaka-pakanga,\* the father of Te Hinaki who was directing the defence of the *pa*. But Te Whaka was severely wounded in his flight, and died near Tuakau. He gave "Te Korotini," then in his possession, to a *mokui* (slave attendant) to deliver to his family. This trust was duly carried out, and "Te Korotini" remained in Ngati-Paoas' hands until these times.

#### POLYNESIAN RELATED TYPES.

These types of implement—knives, slashers, swords or whatever form they might take—are also found throughout Polynesia and are the natural device of people devoid of metal cutting tools. They reach their highest development perhaps in the Kingsmill Group. Mason in his book "Origins of Invention" thus refers to them (page 375.)

The Kingsmill and other Polynesians made a dreadful slashing implement by securely sewing rows of sharks teeth along the side of a handle of wood. These shark's teeth slashing implements vary in length from a few inches to sixteen feet. They are stilettos, dirks, short swords, long swords and pole-axes. In all the range of weapons there is nothing more blood-curdling to behold.

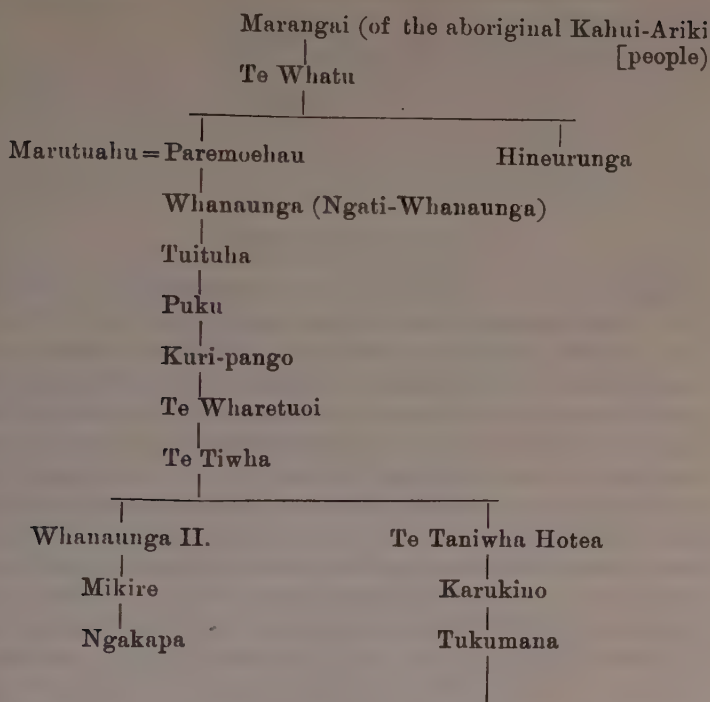
#### A PROTECTIVE ARMOUR.

In Polynesia the use of these deadly weapons apparently led to the development of a kind of body armour. Thus we find that in the Kingsmill Group, and in other localities where the natives had specialised in the use of such weapons, there was manufactured an elaborate body armour, woven of coconut sennit.

This armour was absent in New Zealand, for the Maori never regarded these implements as weapons in the strict sense; the use of them did not appeal to him as a means of attack. The nearest approach to armour were the thickly woven war belts and the mats to ward off spear thrusts

\* Te Whaka-pakanga: he was an aged but active chief who took part in that seige, and was the father of Te Hinaki who perished in that affair. (*Vide* "Wars of the 19th Century," p. 181. His genealogy is given on page 18 thereof.)

GENEALOGICAL TREE OF THE CHIEFS ABOVE MENTIONED.



[NOTE:—Mr. Graham's paper contains the fullest information about *tuatini* that has yet appeared, and is the only existing history of an individual specimen. A number of examples from the British Museum collection are figured by Hamilton (loc. cit.). One from the Hunterian Museum, Glasgow, is described and figured by Buller "Trans. N.Z. Inst." Vol. XXVI., p. 570). There are also examples in the museums at Auckland, Wellington, and New Plymouth, and in the Bankfield Museum, Halifax. In Polynesia, shark-tooth weapons are best known from the Kingsmills or Gilberts, but they also occur in the Cook Islands (*vide* Buller, loc. cit.), and in the Hawaiian Islands (B. M. Handbook, figure 136). The teeth of a weapon apparently similar in type to the "swords" of the Kingsmills are in the Chapman collection, Otago University Museum. They were found at Goodwood, Otago, New Zealand. Similar teeth have been found at Chatham Island.—EDITOR.]

## SICKNESS, GHOSTS AND MEDICINE IN TONGA.

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BY E. E. V. COLLOCOTT, M.A.

Nukualofa, Tonga.

**P**HYSICAL disabilities have not all equally obvious explanations. If a man is struck on the head with a club, the broken skull and knobby piece of hardwood are material evidences easily associated with his lifeless body. Far otherwise are the mysterious internal pains and weaknesses that attack, now the limbs, then the trunk or the head. How explain the vertigo that may overcome a man on whom is no external mark of violence, that causes his spirit to flee and leave his body senseless on the ground? The Tongan succumbs to nervous pains in a way that, at first sight, seems inconsistent with the stoical fortitude with which he bears muscular injuries; but the explanation probably is that in the one case there is obvious and satisfactory cause for the discomfort, whilst the other is uncanny and dread inspiring. A young fellow, a fine strapping man, who, as a schoolboy in Sydney, had given promise of reaching the highest rung in the cricket ladder, was suffering from a swelling in the side, which the white doctor, a capable surgeon, pronounced incurable without an operation which he, with the facilities at hand, did not deem himself justified in undertaking. The doomed man returned to his own village, and without anæsthetic or antiseptic, was operated on with a penknife, and is now verging into hale and portly, but active, middle age. A woman, very stout, who had lived long enough to become a grandmother, had to have a rib removed. The operation was performed by a skilful European surgeon, but the patient's health would not stand chloroform, and a local anæsthetic proved ineffective. She bore the operation without flinching. Whilst the cutting and scraping of bone was going on the hospital attendants kept asking her how she was. "I'm all right," she would reply, and at last, exasperated by the repeated query, she exclaimed impatiently, "Go ahead, and if I cannot stand it I'll tell you." And yet these people, who endure wounds and fractures with such courage, are unnerved by wind in the stomach, and go to bed to nurse a headache. The native massaging is excellent. I have experienced its benefits. One afternoon I ricked my ankle rather badly. Twice that evening a girl massaged it with warm water and oil (the almost invariable accompaniments of the treatment): it was

ainful, but the next day I walked about without the least twinge. I asked her how she knew where to rub. She replied that she just rubbed. "Well," I said, "How did you learn to do it?" "By doing it," she answered, "my father used to make me go and do it for people." And that was all the explanation she was able to give. At another time I was cured of a strain in the groin by a man who just pressed the top of his thumb gently on the strain, so gently that I thought he was afraid of hurting me: but I was quite well in a few hours.

The trouble with the Tongan practitioners is that they have little or no idea of diagnosing a complaint. They just try one thing after another, and the massaging, excellent as it is, is frequently employed where it is not only useless, but even dangerous. Diagnosis is replaced by a series of trials and failures; as the Tongans say, "We'll have a try." If one thing does not show quick results, try another. A man went to a missionary and asked for medicine for a little girl. "She is very ill indeed," he said, "yesterday we gave her seventeen sorts of medicine and she is not better yet." Different practitioners have their own special remedies. One medicine man, or woman, after another, tries his cure, till one is found which gives promise of success, which shows a "sign," or until death cuts short the experiment, and gives a verdict which is accepted with pious resignation as the will of the Lord.

Nor are efforts at cure confined to the person of the patient. Neglect of the dead is a fruitful source of discomfort and sickness to the living. Many ghosts, however, do not seem to merit so much as pity. Certainly there are bad-tempered ghosts, who are the hosts of bad-tempered people pretty often, but frequently the dead cause annoyance to the living to draw attention to their own miseries. The root of a tree has grown through the head of a buried corpse, and a living relative suffers from headache. Of course the cause of the trouble may not be located at once. The living sufferer has recourse to one treatment after another. All is unavailing. At length the cemetery may be tried. The grave is opened, the root cut out, and the headache disappears. It happens, in the cases of this sort which I have heard, the patient has generally, if not always been a woman, and the suffering corpse, or ghost, that of an elderly female relative. Sometimes a rearrangement of the buried bones sets everything right, and effects a cure. This ghostly physic is not effective only in cases of headache. The woman who so courageously bore the loss of a rib made good recovery, except for a small hole which refused to close up. It did not occasion any real discomfort, but naturally she preferred to be without it. An investigation of her mother's bones was at length decided upon; but I have not heard whether it has been carried out. The inconsiderate affection of the



dead may cause much trouble to the living. The poor ghost long for companionship that it has lost, and wanders forth to seek its old friends, and induce them to come with it. It enters, or approaches the body of a living friend, usually by the way a hysterical woman and she may become so violent and excited that several people are required to hold her. A girl in this condition gave a man a good bite in the side; but this exhibition of her powers did not deter him from afterwards marrying her. Perhaps the possessed woman may lie inert, taking no notice of what is said to her. She may tell the onlookers that so-and-so wants her to go with her. One way of treating the trouble is to knead the patient with the knuckles, to press the intruder out. I know a man who chased a ghost round the body of a woman with hot-water packs.

Fainting fits may be due to the attentions of ghosts. A person in a faint is said to be *mate*, dead. I have heard an unconscious child spoken of as distant, or away; apparently the soul was away.

Massage is not the only remedy. There are leaves which are potent layers of ghosts. Tongan treatment is homœopathic, and the effective leaves have a strong smell. They are said to *namu tevole* smell like a ghost or spirit; consequently they have the power of scaring off ghosts. A decoction is made of the leaves, and the juice pressed into ears, eyes, nostrils and mouth, and perhaps rubbed on the body. Ghosts cannot pass the barrier thus set up. There seems to be no apprehension lest the ghost be imprisoned inside the patient. When the patient weeps quietly that is a sign of recovery. Her tears are in sorrowful farewell to her dead friend who is leaving her.

Procedure is simplified by the patient's telling the name of the ghost. The sick girl may not herself know who it is that is so unkindly affectionate, but sometimes she sees the ghost in a dream or in a waking vision, or recognises its voice. Armed with this identification of the intruder, friends visit the grave, and beseech the dead to leave the living alone. There is not a set form of words to be used; respectful remonstrance, threat, anything is in order that may be supposed to be effective. Sometimes the grave is opened and medicine leaves put on the body. A very drastic remedy is to pour boiling sea-water on the grave, though this is not necessarily more effective than turning the bones about and mixing them up. If the head is put where the feet ought to be, and the legs where one would expect to find the head, the cleverest ghost is unable to get itself sorted out and in shape for walking. Ghostly visitations are not always an occasion of sickness. They may be manifested in mysterious lights. People are rather ashamed of having their dead relatives walking about. Neighbours are inclined to judge harshly and to conclude that the spirit is failing to make good its entry into heaven, and is exhibiting a not unnatural reluctance to take the first

plunge into the other place. Tongans are of course unaware of the amiable company that Mr. Bernard Shaw assures us is there.

The solicitations of dead friends does not at all exhaust the possibilities of ghostly interference with the health of the living. Almost any sickness may as well be due to ghosts as to anything else. A girl who lives with a European family in a place where there is a good deal of bush about, happened to cough in the presence of a wise old lady, and was submitted to the following diagnostic examination. "Do you cough much?" "Yes, I cough a good deal." "Do you sleep by yourself?" "Yes, I have a room to myself." "In the dark?" "Yes." "Ah, that is it. In the bush, by yourself, in the dark. Ghosts. Now what you must do is to put a tent of native-cloth round your bed, and sleep inside that with a lighted lamp."

Writers have commented on the simplicity of ghosts, and indeed they seem pretty easy to deceive. A precaution that is not without tender pathos is sometimes taken with women who die in childbirth, or whilst they have a child at the breast. A *tappa* mallet is laid on the dead woman's arm, so that she may suppose that her babe is with her, and so rest peacefully and not go and take her child away. But in spite of all precautions a ghost sometimes breaks through our guards. A man goes to sleep in apparently robust health, and in the morning is found dead. A ghost has come in the night and throttled him, and witnesses are not wanting to testify to marks on his throat. Such a death would perhaps be attributed to conduct which had offended the ghosts.

In earlier days it was extremely common to sacrifice a joint of the little finger on behalf of a sick friend, and in the case of a high chief who was seriously ill a human victim might be offered. Mariner describes the sacrifice of a little girl on behalf of the chief Finau, and I have myself spoken to a man whose mother was an eye-witness of the sacrifice of a man to secure the recovery of a sick chief. In both cases the victim was strangled, and in both cases, too, the patient dishonoured the remedy by dying.

Besides the wide and indefinite number of sicknesses attributable to the misguided affection or malevolence of spirits, a very large range of disorders is classified as *fusi*, a breaking. There seems to be an analogy with the known phenomena of broken bones and strained muscles. The sprains which are amenable to the excellent massage are called twisted sinew, but these supposed breakings are most varied in character, and as indefinite as the illnesses resulting from the pranks of ghosts. The aches caused by lung troubles are supposed to be caused by some sort of internal rupture, and treated accordingly; both internal and externally. As a cure for an aching back massaging is likely to prove effective, even if the decoctions of

leaves that are drunk tend rather to poison the patient than to assist his cure; but applied to pneumonia, pleurisy, or consumption, the method is disastrous. The ideas which direct the healer are of the haziest. I once questioned a man, an intelligent man to boot, who was a noted healer in this genre, as to the type of disorder which he treated. I said that I could understand that a broken bone, or even a strained muscle might be spoken of as a rupture, but what sort of a break was that which made a man have a pain in his chest. What was broken or strained? "It's just a break," he said, and that was all about it. I don't think he was guarding professional secrets through fear of a possible rival.

The rupture that causes the trouble may not be recent, but a little judicious questioning does not fail to identify at last the incident to which the blame attaches. A forgotten fall, or the lifting of a heavy weight, is recalled; "Ah, that is it."

A third great class of sicknesses embraces boils and ulcers and rashes and skin diseases generally, as well as swellings and tumours. These external complaints have individual names, but the class name, *hangatamaki*, is applied with the usual vagueness to diseases external and internal. A specially severe sickness of this sort is "various thing," an internal complaint, in which a mixture of troubles are present, together with a roving commission which enables them to attack different parts of the body simultaneously or successively. The medicines for this type of disease seems to have a special virulency, or to be specially suitable for witchcraft. Medicines in general have the power of causing the sickness which they cure. A girl had a swelling on her abdomen which was cured by a woman, but the girl's brother afterwards had a swelling on the neck. This was caused by the medicine which had cured the girl. A woman was once sitting quietly in church, when all at once she commenced to cough. She coughed, and coughed, and presently felt something in her mouth. She put up her hand and grasped it. It was smooth and round. She thought it was the end of her bowels! She pulled, and the thing came away in her hand, and she cast it from her on the floor—abig, strange, hairy worm. Then she gathered it up in her handkerchief. In spite of her fright, she evidently felt strong proprietary rights in the creature, and would have resented anyone else picking it up; "If I can't pick it up, who can?" The sagacious suggestion was made to drown the animal in medicine, and so make a potion able to cure a similar disorder should it ever reappear. But the worm would not drown. It was thrown into various medicines, but throve in them all, and at last was cast into the fire and burnt. Thus science, on the verge of discovery, was again baffled.

Since medicines have the power of causing the ills they cure they must be treated properly. Unauthorised meddling with medicine

is dangerous. The practitioner, when he has finished his treatment, carefully puts his basket or little bundle of medicine away in the shade, perhaps in the fork of a tree in the bush—it should not be left in the sun; and then he washes his hands. The owners of healing secrets generally guard their knowledge pretty jealously, and some virtue resides in themselves. It would be useless, if not dangerous, to steal anyone's medicine, but the prescription will be effective if properly bestowed by one person on another. There do not seem to be, however, any special ways of gathering the barks and leaves used, though I have been told of a medicine whose base is a bark which must be scraped from the tree when the rising sun shines upon it, and there is another in which leaves are cut down the middle, and the right halves thrown away and the left used.

In addition to the ordinary massaging there are gentle strokings, some of which appear rather mysterious in their operation. A white man, young and alert, told me that he had a painful swelling on his back, like a blind boil. An old woman came to him equipped with a concave sea-shell with a hole bored through the middle. She lightly outlined with the edge of the shell a square round the swelling, and then placed the shell, hollow side downwards, on the swelling, and gently stroked the shell. There was immediate relief and improvement; the trouble was much better next day, and quite cured in three days.

Less mysterious, and less effective than the white man's stroking the back of a shell, is the practice of holding the stomach of anyone suffering from abdominal pains. The shooting pains caused by wind give rise to much alarm. It is thought that vital parts of the body are leaping out of place, and, quite logically, the friends of the patient seek to hold the restless organ in its proper position. To the Tongan, Europeans probably seem rather heartless in leaving the sick alone as much as they do. Tongans are continually doing something for the patient, holding his head, or massaging his stomach, or what not. It would be very worrying to a sick European, though it must be admitted that much of the stroking and rubbing is extremely soothing. I have known a woman in difficult labour to have all her pains instantly relieved by the gentle pressure of an old midwife's hands.

Toothache, which must be more common now than it was once, is the subject of controversy. Some hold that it is caused by the boring of a little animal, whilst others maintain that it is just a sickness. So far as I have heard the evidence the partisans of the borer theory seem to have the stronger case, as a girl told me that she had herself seen a grub in a man's hollow tooth.

Children's illnesses are often attributed to "remembering," that is pining for an absent relative. A child is ill; remedies are tried in

vain, it is remembering. The cure is what parental affection naturally prompts. The absent father, or mother, or whoever it is that is remembered, is communicated with, and never fails, if it is at all possible, to hasten to the side of the little sufferer, and the cure is wrought. Although Tongan medical practice is vitiated by the inability to diagnose correctly, it would be unfair to suggest that many valuable remedies have not been found amongst the native plants. Ageing beauty, by the way, has found the secret of restoring a glossy blackness to greying locks. Nor would it be fair to refuse to admit the skill with which some things, once they are recognised, are treated, and it would be ungrateful for one who has lived long amongst this affectionate people to forget the tender care they lavish on the sick foreigner, as well as on those of their own race.



# SOME NOTES AND LEGENDS OF A SOUTH SEA ISLAND.

FAKAOFO OF THE TOKELAU OR UNION GROUP.

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BY WILLIAM BURROWS.

## CHAPTER I.

Introductory—Short Description of the Natives—Native Dancing.

**D**URING the latter part of 1921 I was a resident for about six weeks in the island of Fakaofo. This island (Lat.  $9^{\circ} 26' S.$ , Long.  $170^{\circ} 12' W.$ ) also has the name Bowditch Island, and forms one of the Tokelau or Union Group.

The Group was proclaimed a Protectorate of Great Britain in 1894, and was embraced in the newly formed Gilbert and Ellice Colony in the year 1916.

During my stay in the Island, and partly due to the fact that the work I had to do took only the first few days, I was enabled to gather a certain amount of information regarding the people.

My chief informant was a very old man whose actual age it was impossible to determine. An approximation could be arrived at from his statement to me that he was a youth, 'not quite a young man,' when the missionaries arrived at the island. This was in 1861, so he was probably in the neighbourhood of seventy-five. In spite of this his faculties were unimpaired and his memory wonderful. In addition, the old chap had a keen sense of humour.

With him I spent every evening for over a month and from him learnt about the people of the Tokelaus, their history and their legends.

In the chapters which follow I will attempt to keep separate the facts which I gleaned of present day conditions, the facts concerning historical events, and the tales of a legendary nature.

## SHORT DESCRIPTION OF THE PRESENT-DAY INHABITANTS.

The natives of the Tokelau Group do not present uniform physical characteristics, and it is impossible to generalize either in the matter of colour or in the type of hair. The predominating colour is a very light chocolate, and the hair black and straight. Darker skins are not uncommon and 'fluffy' hair is seen frequently. They are a big people, but, unlike the Samoans, do not seem to run to fat. It is a rare thing to see either an old man or old woman who has become ungainly, and the women especially keep their figures to an advanced age. Their features are good, and the broad nose (so common in Tonga) is very rare.

They appear to be a healthy race, but a large percentage are affected by a type of ringworm, not unknown in other groups where it goes by the name of Tokelau ringworm.

One factor in the lives of the people which tends to keep them fit is the fact that they are compelled to put out in their canoes almost daily to obtain fish.

All three islands are coral atolls with no entrance into the lagoons. Consequently the fishing canoes have to go over the reef to obtain the main food supply. This entails skilful and sometimes dangerous work.

They are probably the finest surf-boatmen in the world, this characteristic being shared by the natives of most of the Ellice Islands where conditions are similar.

The islands, being atolls, are very poor in soil and the plantations are maintained with much labour and preparation.

Apart from coconuts, which grow everywhere, breadfruit, bananas and *talo* are the extent of their agricultural successes.

The last named, *talo*, of which there are several varieties, is the root of a plant of the lily family and requires swampy land in which to grow. Chickens, ducks and pigs comprise the live stock. Coconuts do extremely well, and the islands are happily free from the more serious coconut pests. There is no rhinoceros beetle.

The one pest which has to be combated is the rat—a rather small, long-tailed and light-coloured variety—which nests in the coconut trees and destroys the young nuts.

The language used by these people is a dialect of Samoan, but they do not write it. For writing, Samoan is used, and the Church Services are also held in that language.

The constitution of each island consists of a Fa'amasino (Native Magistrate), Faipule Sili (Chief Councillor), several Faipule (Councillors), and a clerk, who also acts as Postmaster. There is also a Captain of Police and two or three policemen, a warder for the lock-up, and a hospital dresser.

A white official from the Ellice Group visits the group as opportunity offers.

The canoes built and used in the Tokelau Group present several novel features to those seen elsewhere. In length they vary from four to six fathoms, and are dug out from a kanava log.

The outrigger is short and the *'ama* (or float) is of some light soft wood.

The wood of the kanava tree is a hard-wood with a handsome grain, and makes good furniture. It is, however, somewhat heavy for canoes. The canoes therefore are rather clumsy and very poor sailers.

The peculiar feature about their construction is that when the log has been dug out it is cut into sections, usually six or seven, and these sections then sewn together with native-made twine.

The reason for this is that kanava wood is somewhat liable to split longitudinally, especially when the canoe bumps heavily on the reef when landing in a heavy surf. With the canoe in sections only one section becomes damaged and can be replaced.

The single sail used, formerly made of matting, now always sail-cloth, is the shape of a small-angled triangle with its apex at the foot of the mast. The larger canoes in present use will carry from eight to ten men.

In former times a much larger, and double, canoe was constructed for their ocean voyages. These consisted of two dug-outs lashed together with spars, which formed a platform and on which was built a shelter.

One of the dug-outs of the pair was about a fathom shorter than the other. For this I can see no reason, neither could my informant give me one.

These big canoes were sometimes from seventy to eighty feet in length, and carried fifty or even sixty men. In them voyages were made to Tonga, Samoa, Fiji and the Cook Islands, and they were used for frequent intercourse between the three islands of the group.

All travelling by canoe or boat between the islands and groups has long since been stopped by the Government, so that there are no large canoes now in existence.

I made enquiries in Fakaofu to see if I could find any portions of one of the old canoes, and was successful in seeing a portion of a mast and a steering paddle.

The latter I had hung up in the island Falefono (or meeting house), and gave instructions that it was never to be moved.

#### NOTES ON DANCING.

The national sport—if one may term it so—of the people is dancing, and the type of dancing is similar to that of the Ellice Group. Participated in by both sexes, a dance takes the form of gesture illustration of a song.

The rhythm is sustained by the 'band' situated in the rear of the dancers, and the only instrument is a wooden box covered over by a mat which is beaten with the open hand.

Men and women, mixed together, sit in rows at the start, but before long all will jump to their feet and join in with exactly similar movements of head, arm, hand, body and legs.

The singing, in which all take part, is always harmonious and sometimes really tuneful. The words of the songs are usually descriptive—snaring pigeons, a ship weighing anchor, fishing, etc.

The costume whilst dancing consists of the native *titi*, worn by both sexes, but in the case of the women over their skirt. The women also wear a singlet, but the men nothing else. All are decorated with flowers and leaves, and scented coconut oil is rubbed over all bare skin.

The tunes used for the dances are generally borrowed from the Ellice Group, but the words written locally. The local 'poet' is a man of some importance, but in two cases at least his subjects were distinctly odd. One dance and song, which I heard, described the *telephone*, which was said to exist between New Zealand and England. Another, the arrival of a ship at Liverpool and the firing of a gun as she anchored!

All the present-day dancing is of recent importation, and I saw both Samoan dancing and a stick dance from Wea (Uvea, Wallis Island) practised. It appears that the original form of dancing of the Island was not at all times in accordance with the views of the missionaries who reached the Island in 1861. This led to the stopping of all dancing as sinful.

After some trouble, however, I succeeded in getting one or two of the old men to show me the style of the pre-mission dancing.

This dancing was evidently more in the Samoan style, that is to say, each person danced separately, than in the Ellice style, where the dancing is concerted. The time was kept by a man beating a board with two sticks, and the rhythm appeared to be three-four time in each dance that was shown me.

Some of the words of the songs were not understood by the old men who sang, much less by any of the present generation.

One song illustrated fishing, another paddling a canoe. In the latter, model paddles were used. Their subjects seem harmless enough, but doubtless there were others.

On another occasion I managed to get some of the old women to show me a dance of former days. It seems that the men and women did not join in the same dance.

The style of the two or three done for my benefit was much the same in each, and the rhythm was three-four time.

These dances were unaccompanied by singing, and the time was maintained by the beating of a piece of wood with the open hand.

One such dance consisted of a line of women advancing in single file with short tripping steps, three steps then a pause, with swaying body movements and quick arm and hand action. The line gradually converged inwards making a smaller and smaller circle, then it unwound itself.

It was pretty and graceful, although performed by women anything but young.

To the modern dancing it was as the Minuet is to the Foxtrot!

## CHAPTER II.

The Calendar—Twelve-point Compass—Wars and Migrations—Tuitokelau—  
Marriage Customs—Tui o le Mu.

### NOTES ON THE TOKELAU CALENDAR.

I must confess that my enquiries regarding this subject did not reach finality.

It seems that in former times periods were calculated entirely by lunar months, but that now they apply the same names to the calendar months.

The following modern calendar was given me by a native:—

(January)	Uluaki Palolo	No fish particularly.
(February)	Toe Palolo	„ „
(March)	Mulifa	No fish particularly. Westerly winds finish.
(April)	Takaoga	Gatala (Rock cod) come in.
(May)	Uluaki Siliga	
(June)	Toe Siliga	Fapuku and Gatala breeding.
(July)	Uluaki Utua	
(August)	Toe Utua	
(September)	Vai Iroa	Fish called Lauaufao, Ufu, Laia, Alomea and Aseo come in.
(October)	Fakaafu	Hot month; trees wither; fish are breeding and turtles lay.
(November)	Kaunonu	Commencement of Westerly winds.
(December)	Oloamanu	Birds remain close to land. Bad winds.

At the same time there is a different name for each day of the lunar month, and movements of the different fish are foretold to a day or two. It seemed to me that the names of the days were only known to the older men, and I did not succeed in obtaining the complete list.

### THE TWELVE-POINT COMPASS.

The natives of the Tokelau Group have the compass divided into twelve points, and have twelve names for the winds from these quarters.

The four cardinal points are as usual, but two points occur between each pair of cardinal points.



Compared with the ordinary compass, the following shows the matter clearly:—

N.	Tokelau Fakalua
N.E.	Luatu
E.	Toga (Tonga) Sulu
S.E.	Tefa
S.	Sema Lafalafa
S.W.	Lakilua
W.	Laki Fakatiu
N.W.	Palapu
N.	Tokelau

#### WARS AND MIGRATIONS.

Up to comparatively recent years, the three islands of the Tokelau Group were frequently fighting, until the island of Fakaofu succeeded in subduing the other two.

The last of the fighting between Fakaofu and Atafu, which was described as taking place 'a long time before the missionaries arrived' was told me in the following words:—

On a certain occasion a visit was paid to Fakaofu by the people of Atafu, in eight large double canoes. Now it so happened that at this time nearly all the men of Fakaofu were away on voyages—some had gone to Samoa, some to Fiji and some to Tonga. The visitors, therefore, were most unwelcome, as they lived on the food of the island and this had to be provided by the women of the place.

The Fakaofu women then tried several means of getting rid of their visitors. First they tried to starve them off, and to this end broke all the eating coconuts one night on a rock in the lagoon. This not proving immediately effective they tried to scare them away by pretending that their men were returning. For this purpose a large number went out at night in canoes, but only one in each. Then, at daylight, each put the sail up in her canoe so that the people of Atafu saw a great fleet of canoes approaching the island.

This had the desired effect and the unwelcome and now frightened guests made haste to escape. As they went out over the reef—which they did by the passage to the northward of the village—they took prisoner the daughter of the chief of Fakaofu. To show their contempt they tied a rope round her neck and towed her behind one of their canoes.

In this way she was killed, and devoured by sharks. Some time after the men of Fakaofu returned, and, as soon as they heard of the insult, prepared for war.

In due course a large fleet of canoes sailed for Atafu, and arrived off the island just before dark one day. The Atafu people knew that they would be overpowered, so, the same night as the attacking party landed, as many as could do so escaped in their canoes.

Of those that were left the majority, including the women and children, were killed on the following day. One man was towed behind a canoe and thus killed to remind them of the death of their chief's daughter. A few only were spared and these they took back to Fakaofu with them.

Later on the chief of Fakaofu sent some colonists over to Atafu, and thus the island was populated again.

Some of the canoes which escaped from Atafu reached land. Some settled in Samoa, some in the island of Takopia, some reached the Carolines, and some settled in Pusikaiana.

The above would seem to account for one or two of the Polynesian colonies which are found in the Melanesian sphere.

Takopia is an island on the east coast of the Solomon Group, and Pusikaiana, I have little doubt, is Lord Howe Group which is known as Sikaiana in the Ellice Islands. Lord Howe, also called Ontong Java, lies to the north-east of Bougainville, the northernmost island of the Solomons.

I do not know to what extent, if any, the Polynesian strain is to be found in the Caroline Group, but between the Carolines and the north-east of New Guinea, but closer to the coast of New Guinea, lie the islands of Aua and Durour. The people of these islands are unmistakable Polynesians.

The island of Nukunonu was never completely captured by the people of Fakaofu, nor were all the people either killed or removed.

In the last fighting which took place between these two islands, the battle occurred in Nukunonu, and Fakaofu was entirely successful. They were pursuing the Nukunonu people, but checked on seeing a *titi*, of a pattern only made in their own island, hanging up in a conspicuous place. This *titi* they would not pass, and this spot now forms the boundary of the lands claimed by Fakaofu in the island of Nukunonu. The *titi* had been hung up by a woman of Fakaofu who had been stolen in a previous raid made by the Nukunonu people on Fakaofu, and had since married and settled down.

Marauding expeditions to Fiji were not uncommon, and one story told me of a success gained at a place they called 'Atu Lau,' where

they say land is still kept for strangers to live upon, admitting the fact that it had been captured. I have not yet ascertained which island of the Lau Group this refers to.

#### TUITOKELAU.

Before the advent of the Mission to the group—which event, as mentioned elsewhere, took place in 1861—there was a stone column close to the landing place at Fakaofo. The name of this stone was Tuitokelau, meaning ‘head chief of the Tokelaus,’ or Unions as they are now more generally called. This stone column was rectangular in shape, and its dimensions, as far as I was able to find out, were about three feet by two feet by fifteen or twenty feet in height.

In spite of what others have said on the subject, I was assured by the old men that this stone was never worshipped and did not represent a ‘god.’ Be this as it may, the missionaries on their arrival destroyed the stone and had it broken up into small pieces. Perhaps this was a wise course at the time, as, although not actually an object of worship, yet possibly it fostered superstition.

At that time Fakaofo was the head island of those comprising the group, and Tuitokelau without doubt represented this overlordship. For example, once a year the people of Atafu and Nukunonu had to bring to Fakaofo a present of mats and *titis*, theoretically for Tuitokelau, but practically for the people of Fakaofo.

Enquiries as to what had become of the pieces of this interesting relic elicited the fact that one fairly large piece was built into the wharf. At the risk of being accused of encouraging heathen practice I had this piece replaced by some ordinary stones, and set up in a corner of the island *falefono* (meeting house). This piece is very much worn and its dimensions are two and a-half feet by one and a-half feet by four feet in height. The Rev. George Turner in his description of Fakaofo on page 267 of his “Samoa,” gives a very different significance to Tuitokelau. He admits, however, that his information was gained through the native pastors, who are always biassed in these matters.

#### MARRIAGE CUSTOMS.

Before the arrival of the Mission, which took place in 1861, the marriage ceremony does not appear to have been made much of. As far as I could find out from the old men, it comprised little more than a feast in which both families took part. There was also an exchange of mats.

There was a ceremony, however, on the birth of the first child. This was held ten days after the birth, and consisted of the mother walking through the *falefono* (meeting house) where the people were all assembled. During her ‘showing’ the people sang. The mother

was accompanied by a girl friend who led her, and was followed by several men armed with spears, who danced.

I was told that this custom was common to all three islands of the group, and that if a woman was in a strange island and had a child, she had to go through the ceremony there if it was the first she had given birth to *in that island*. This was irrespective of the number of children she had already had in her own island.

#### TUI O LE MU.

I include this story amongst the historical ones rather than amongst the legendary, for I feel sure that the explanation is simple.

The story, as told, was as follows:—Many years ago there was a stone called Tui o le Mu which had been brought from Samoa. It was not quite round and its surface was smooth and black. It was from nine inches to twelve inches in diameter.

A special house had been built for it (I was shown the spot where it stood), and in this house the stone was kept.

Its peculiarity was that whenever there was a shower of rain, the stone came out of its house for a bath. It slid along the ground and returned afterwards, unaided.

At one time there was a drought and no rain fell for a long time. Tui o le Mu, therefore, came out of its house looking for water and made for the well which was close by. Into this it fell and was not seen again.

My old friend, who told me the above, remembered seeing the stone as a boy, but said he had never seen it move. His wife, on the other hand, said she had seen the stone take its bath.

There can be no doubt that it was a tortoise (an animal quite unknown in the island), and this story is of interest as showing how a legend is likely to start. Why or how a tortoise should have been brought to the island it is impossible to say.

## CHAPTER III.

Legends of Origin—Legends of Creation—How the Fish got their Colours—The Courting of Sina—The Manini—Nonu and Moa (or Sina)—Sina and Tui o le Mu—How Counting came to be as it is—Why the Lightning precedes the Thunder—How Fire was Introduced—How Fresh Water reached Fakaofu—The Faisua—Tuifiti and his daughter Tuifiti—The story of the Pearl-shell—A story of the Stars—Concerning Afā.

## LEGENDARY ORIGIN.

One of the several legends concerning the origin of the inhabitants of the island of Fakaofu runs as follows:—

A canoe, containing three men and three women, sailing from Rarotonga got driven to the westward. They eventually landed on a reef which had a sand bank on it but no trees. This was Fakaofu, and here one man and his wife elected to stay, the others setting sail again and eventually reaching their home. Some coconuts which were in the canoe were landed with the man and his wife, and some they planted.

By and by the woman died without children, so the man built himself a canoe and sailed to Nukunonu where he obtained another wife. The family of these two were the ancestors of the present inhabitants of Fakaofu.

If this is true, Nukunonu must have been inhabited before Fakaofu, but I could not learn where the Nukunonu natives were supposed to have come from.

The legend of the maggot forming in a fish and developing into a man is also known in Fakaofu. It was told me as follows:—

An 'Ulua'—the local and also Samoan name for a particular fish—the Suga of Fiji—got stranded on the beach and died. By and by a large sea-bird, the Tālagā, flew down, and with its beak pricked the carcass. A maggot then appeared out of the hole, and this maggot grew into a man. His name was Teilo.

It is unexplained where he obtained a wife, but in course of time he had two sons whose names were Kava and Sigano. The descendants of Kava and Sigano are the inhabitants of Fakaofu.

At one time, also, the people of Fakaofu built some large canoes and made a voyage to Samoa, where they procured some wives.

The fact that the word 'Tokelan,' the native name of the group, is the word that indicates north in the dialect of the people is worth of notice. 'To'elan' is north-east in Samoan also.



It is curious that I did not come across the legend of origin as quoted by the Rev. George Turner in his 'Samoa,' p. 267. He states that the first man of Fakaofu was called Vasefanua and that he developed from a stone.

#### LEGENDS OF THE CREATION.

The fishing story common to many other islands of the Pacific was told as follows:—

There were three brothers who lived in Tonga, and whose names were Maumua, Mauioto and Maumuli (Maui the First, Maui the Middle, and Maui the Last). One day the three brothers went out fishing in their canoe far from land. Presently Maumua's hook got caught in the roots of a coconut tree on the bottom, so he hauled up a portion of the bottom to clear his hook. Thus an island was formed which so surprised the brothers that they called it Fakaofu—*Faka* = in the nature of, *ofu* = surprise.

They then moved further on and continued fishing, when Mauioto's hook got caught in the bottom, this time in the roots of a Nonu tree. He hauled up, and thus another island was formed. This they called Nukunonu—*Nuku* = island, *nonu* = the name of a tree.

Again they moved on, and on this occasion Maumuli's hook got foul. By hauling up, the island of Atafu was formed. Maumuli's hook had got foul of the roots of a Kanava tree.

The connection between the name Atafu and the Kanava tree I was unable to discover, neither could I find out another derivation of the name Atafu.

The latter stage of the Creation, at the period quoted in the legends of other groups when the sky was close to the earth, was told thus:—

When the world was first created, the sky was very close to the earth, in fact there was only about one yard of space between the two.

At this time there was a man named Iikiiki and his wife Tālaga who lived on the earth, and they had a son named Lu. Now Lu was a small boy and, as he lay on his back, could rest his feet against the sky. Lying thus one day, he began to sing:—

“Sapaipai ie, sapaipai ie  
Te lagi o te Atua  
E Lu tekena, e Lu tekena.”

[A translation of this, given me by a native interpreter, is:—

“Lift, lift  
The sky of god  
By Lu's pushing.”

cannot trace the word *sapaipai* in the dictionary.]

As Lu sang "E Lu tekena" he straightened out his legs and pushed the sky up a little! Then he stood up, and, still singing his song, pushed the sky up with his hands. Then he used a tree, and finally he climbed up one tree and used another to push with.

When he could reach no higher he changed his song and called the winds to his assistance, thus:—

"Te sulu sau ki ei.	(E.S.E. wind, come here!)
Te toga sau ki ei.	(E. wind, come here!)
Te luatu sau ki ei.	(E.N.E. wind, come here!)
Te fakalua sau ki ei.	(N.N.E. wind, come here!)
Te tokelau sau ki ei.	(N. wind, come here!)
Te palapu sau ki ei.	(N.N.W. wind, come here!)
Te fakatiu sau ki ei.	(W.N.W. wind, come here!)
Te laki sau ki ei.	(W. wind, come here!)
Te lakilua sau ki ei.	(W.S.W. wind, come here!)
Te lafalafa sau ki ei.	(S.S.W. wind, come here!)
Te sema sau ki ei.	(S. wind, come here!)
Te tefu sau ki ei."	(S.S.E. wind, come here!)

All the twelve winds obeyed his calling and came to his assistance and by their united efforts of blowing from all directions, blew the sky up to its present position!

#### HOW THE FISH GOT THEIR COLOURS.

There was a man named Taftopua and his wife Ogapua who lived in Fakaofu, and they had two children, Sina and Te Lupe (The pigeon).

One day the old people had put all their mats out in the sun to dry and had gone to their plantation to work, leaving the children behind to look after the mats. At this time a meeting was being held nearby, by Asokino (Wet Day), Asomatagi (Windy Day), Asiosio (Waterspout), Faititili (Thunder clap), Tagulu (Distant thunder) and Asolelei (Fine, clear day). When they saw the mats put out the children began to discuss how they should set about spoiling them, and Asokino made the first suggestion. He said, "Let me bring up a big cloud so that it will rain heavily," but it was pointed out by one of the others that the children would see the cloud and take the mats in. Then Asiosio said, "Let me try," but the same reason, that Sina would see its coming, prevented his attempt. Both Faititili and Tagulu offered to try, saying that rain would come after their noise. "Yes, but their noise will warn Sina," said the others. Finally Asolelei stood up and said, "Leave it to me; I will clear all the clouds away from the sky so that Sina will not watch any more, then I will bring a strong wind which will blow the mats into the sea." This plan was then upon adopted, and Asolelei cleared up the sky.

When Sina saw the perfectly clear heavens she thought of no trouble which might affect the mats, and she went to sleep. Then came up a strong wind which blew all the mats far over the reef and into the sea.

Te Lupe was awake, however, and at once flew out to sea and was successful in recovering one hundred of the mats, but most of them were lost. Then Te Lupe tried to wake up Sina by pricking her eyes with his bill, but in this he failed.

By and by Taftipua and Ogapua returned from their plantation, and when they found their mats lost, and Sina asleep, they gave her a severe whipping. Sina was very sorrowful, and taking a bottle containing oil for tattooing and also a tattooing-bone from a shelf in the house, she went out to the edge of the reef where she stood and cried:—

“Tele, tele mai Sina, ika      (Come quickly to Sina, fish,)  
Eio! i tagia ko Sina.”      (At the bidding of Sina!)

The first fish to answer her call was Te Pone. Sina asked him, “What kind of a fish are you? Can you swim straight or not?” Te Pone replied, “No, I cannot swim straight, but I came when I heard your sweet song.” “Come close and I will tattoo you,” said Sina, and she tattooed the fish all over its body and close down to its tail. (This fish was red before but now is that colour only close to its tail.)

Then she called again:—

“Tele, tele mai Sina, ika  
Eio! i tagia ko Sina.”

The next fish to answer the call was Te Manini, and she asked, “What kind of a fish are you? Can you swim straight or not?” He replied in the same words as Te Pone, so she tattooed him. (This fish was white before; now it has black rings round its body).

Then she called again in the same manner as before, and Te Mago (the Shark) came up in answer to her. Instead of tattooing him, however, she poured some evil-smelling water over him! (That is why the shark smells now.)

Once again she called, “Tele, tele mai,” etc., and the Turtle came along, and in reply to her question said, “Yes, I can swim straight, and I have come in answer to your sweet song.”

Sina replied, “Very well, carry me,” and she jumped on to his back. So the turtle swam away straight from the land with Sina on his back. Presently Sina made a kissing sound with her mouth, and the turtle asked her why she made that noise. She replied that she was thirsty and wanted a coconut to drink. The turtle said, “All right, take the nut which is under my flipper.” Sina did so, but had no means of opening it. The turtle, therefore, pointed out the spike on

his elbow which Sina then made use of. When she had finished drinking she said that she wanted to eat the nut, so the turtle told her she could break the nut on the corner of his shell. These instructions she misunderstood and hit the turtle on the head with the nut! He promptly dived and left Sina swimming. She soon started crying and telling the turtle how sorry she was, and this brought him back. The nut was then successfully broken up and eaten, and the journey continued as before.

By and by the turtle said, "If we meet a wild fish, you hold on tight and I will dive down, and if I am staying under the water too long for you, throw away your bottle of tattooing oil. The fish will then chase that and we will come up and escape." Presently they met a Tanifa (wild or man-eating shark) and they successfully carried out their programme.

Now the cork in the bottle was not quite tight and the oil oozing out made the bottle slippery, and it kept slipping away from the shark whenever he tried to bite it. Thus it went down and down to where the Palu live. Here the cork came out altogether and the Palu drank the oil, the cork itself being swallowed by a fish called Tafauli. (This is why the Palu is so full of oil, and also why the Tafauli is an oily fish.)

So Sina and the turtle escaped and continued on their way, and by this time they were nearing Fiji. Sina was tired and she wanted to go ashore, but first she asked the turtle who was the chief of this land. The turtle told her Tuifiti (Head chief of Fiji), and she at once said, "Don't go to that Island, I don't like that name."

They continued their journey and by and by came to some more land when Sina asked who the chief was of that. The turtle replied, "Tuitoga" (Head chief of Tonga), and Sina said, "Don't go there, I don't like the name of that man."

They proceeded once more and in due course reached Vavan, and on Sina being told that the chief's name was Tinilau said, "All right, this is where I will go ashore." When they landed, both Sina and the turtle cried as the latter was to return home, and they had become very fond of each other.

Said the turtle, "Before I go, get one young coconut and the tip of a coconut-leaf and throw them over me for luck." When this had been done, the turtle swam away home, and Sina went to Tinilau's house where they were married. In course of time Sina gave birth to a daughter.

In the meantime Sina's brother, Te Lupe, had been searching everywhere for her, and had visited many islands in his search. One day he chanced upon Vavan and there he saw his sister sitting on the ground making a mat, and her child playing round close by. The child saw the bird first and drew Sina's attention to him. Sina was

delighted to see her brother who told her he had been looking everywhere for her, and now that he had found her, intended to take her home. Sina was in doubt as to how this was to be done, but Te Lupe said, "Come and sit on my shoulder and I can carry the child in my bill." In this manner did Sina and her child return to Fakaofu.

Now while this was happening Tinilau was out fishing, and Te Lupe flew over his canoe with Sina and the child on their way to Fakaofu. Seeing this, Tinilau at once followed and reached the island at the same time. Since then Tinilau and his family lived in that island.

#### THE COURTING OF SINA.

Sina lived in Fiji with her parents, Sepeka her father, and Sepeka her mother. She was very beautiful, and when she grew up three high chiefs came to seek her hand. These were Tuifiti (High chief of Fiji), Tuitoga (High chief of Tonga), and Tinilau (chief of Vavau).

First came Tuifiti and he brought presents consisting of a *sulu* (skirt or dress), one hundred fathoms in length, made of *siapo* (native cloth), and a necklace made of shells. He also explained that his wife would live in a house supported on men, and would have plenty of men to eat. Sina did not approve.

Then came Tuitoga, and his presents were similar to those of Tuifiti, but Sina was no more attracted by him than by her previous suitor.

Lastly came Tinilau who brought a similar dress, but his necklace was made from the beaks of Bos'n birds. He promised, also, to feed her on fish and *gogo* (a sea-bird.) This Sina approved of, and she accepted him. So they were married and went to live in Vavau where, in course of time, her son was born. Him she named Kalokalo le La.

One day Sina was lying down in her house with the child, and some of Tinilau's relations were sitting round about the house. They thought she was asleep and began talking and abusing her; their complaint being that when their chief, Tinilau, married her they had received no presents, neither had any been given now that her son was born. Now Sina was not asleep and she heard all that was said, which made her so angry that she jumped up, seized the child, and ran away to a house near by where her husband was working.

Tinilau asked her what the matter was and she replied that she intended to return to her parents in Fiji. When pressed for the reasons, she told Tinilau she did not love him any more. Tinilau said, "Is that because I often go out fishing? You know that I always prepare a bonito specially for you to eat raw when I return." Nothing would appease her, however, or alter her decision to return to Fiji, so finally Tinilau agreed and said he would accompany her.



So they went down to the beach to see about a canoe, and there they saw one not far off with two people in it. These were Mu and Sausau (the names of two fish), and as they sat facing each other in the canoe while they paddled, the canoe remained always in one place. Tinilau called out to them and explained what was wrong, so one of them turned round and the canoe was brought ashore. In this canoe Tinilau and Sina set out for Fiji with Mu and Sausau as their crew.

As they passed along the coast the people of the villages came down to the beach and called out to know who they were and where were they going, Sina replied, however, by giving false names, and did not say that they were running away to Fiji. The trip was successful, and in time they reached the home of Sina's parents in safety.

When the two Sepekas heard what the trouble had been they were very sorry, so they filled up the canoe with a present of Te Togu (a type of mat, very finely plaited) and sent Mu and Sausau back with it to Vavau. Sina and Tinilau never went back to Vavau, but from that time on lived in Fiji.

#### THE MANINI.

Sina was living in Fakaofu with her husband Tinilau when one day she caught a tiny fish in a pool on the reef. This fish she put into a coconut shell and fed it, and it started growing very fast. It was soon too big for the coconut shell, so she put it into a wooden trough. When it out grew this she kept it in a pool on the reef. The fish still grew, so it was turned out into the lagoon, but Sina continued to feed it. Finally it became of such a size that it was put into the sea, and here it would come up to the reef to be fed whenever it was called by either Sina or Tinilau. Its name was 'Namutaimoa.' Tinilau had the habit of calling to it when he returned from bonito fishing, and giving it some of his catch to eat.

Now at this time there were some people belonging to the island of Lagituasefulu visiting Fakaofu, and they planned how they could kill and steal Namutaimoa. They did not know its name, however, as this had been kept a secret by Sina and Tinilau so that no one else could call it up.

By hiding on the reef one day when Tinilau was returning from his fishing they heard and saw what Tinilau did to bring the fish up and on the next occasion of his being away they imitated him so successfully that Namutaimoa came up and was speared. All haste was then made to run away with the body, and in due course they reached their island of Lagituasefulu safely. When Tinilau got home and learned what had taken place, he at once set off in pursuit.

Now there are ten islands close together whose names are Lagituntasi, Lagituaeha, Lagituaetolu, Lagituaefa . . . and Lagituasefulu.

On reaching the first of these he was told that the fugitives had reached the second. On reaching this he found they were at the third, and so on, until he ran them down in their own island of Lagituasefulu.

When he landed it was night and very dark, and the first thing he saw was a large fire ready to be lit, and an old woman attending it in order to cook the fish. Presently the people called to her to light the fire, but Tinilau said, "No, wait a little," and she obeyed him. Each time a man called out, "Light the fire," he crept up and killed that man; and this went on until he had killed them all. This he was able to do because it was so dark, and he kept very quiet. Tinilau then proceeded to cut Numutaimoa into small pieces, and these pieces he scattered in the sea, where they at once became fish.

This fish, which is now extremely common round Fakaofu, is known by the name of Manini.

#### NONU AND MOA (OR SINA).\*

There was once a man named Nonu who spent most of his time out in the surf, which he used to "ride" on a plank. He lived with his mother, by name Kai.

There was also living close by, a family consisting of three sisters and their mother. Their names were Tauluga, Taulalo and Moa, their mother's name was Kui. The two elder of these sisters were only half human, but the younger sister, Moa, was entirely human.

One day Tauluga came to Nonu's house but he was, as usual, out surf-bathing. On his mother calling out to him he asked who it was had come to see him, and when he heard the name Tauluga, called out, "Send her away, I don't like her." On another occasion Taulalo came to see him, but when Kai called to him he replied as before, "Send her away, I don't like her." Yet again, Moa came to the house to see him, and as soon as he heard this he hurried in from his bathing, and back to the house to meet her. Moa at this time was quite a young girl, and she came to live with Nonu and his mother, and she treated Nonu as her father.

By and by she grew up, and one day Nonu asked her whether she looked upon him as her father or as her husband. So they were married, and a big feast prepared for the occasion, also a dance. To this feast came Moa's two sisters, and during the evening sent a message to Nonu saying that they wanted some necklaces made of flowers. Nonu replied that all the necklaces belonged to Moa, his

\* This story was told me as originally coming from Fiji, although it does not appear to have any connection therewith. Also Moa seems to change into Sina half way through.

wife, and they could have none. This so enraged them that they stole his *soul* and made off with it!

Nonu then appeared to be dead, but Moa said he was only asleep, and had him carried to his house where she covered him over with mats, and gave orders that no one was to disturb him.

She then started off in pursuit of her sisters who had returned to the house of their mother Kui, and on arriving there she found that they had gone on to their plantation. So she asked Kui to call them home, and this she did by crying out that she was "nearly dead." Tauluga and Taulalo came hurrying home, and when they discovered that it was only Moa who had come, they were angry. Their mother, however, told them to wait and find out what she wanted, and Moa explained that she had come for the soul of her husband. Kui then told them to give it up.

Now there was a basket full of souls hanging up in the house, so the sisters took out one and threw it across to Moa. Moa said, "That is not Nonu's for I see his moving in the bottom of the basket." Tauluga then threw another to Moa, but this was returned also as not being the right one. Finally they gave her Nonu's, which she wrapped up carefully and with which she started for home.

On the way she held a conversation with it. The soul asked why the road was so muddy—it knew this because Sina slipped once or twice—and Sina replied that there had been some heavy rain recently. Presently the soul said that it smelt a Maile tree, and Sina replied, "Yes; someone has been making a *titi* from its leaves." After this it smelt blood, so Sina explained that they were passing a place where a turtle had recently been cut up.

So Sina reached home and found that her orders had been respected, and that Nonu's body had not been touched. She thereupon replaced the soul in it, and Nonu lived again. Then Nonu and Sina lived happily.

#### SINA AND TUI O LE MU.\*

There once lived a "being" who was sometimes man and sometimes devil, named Tui o le Mu.

One day, whilst up in the sky, he saw on the earth Sina at work cleaning up the rubbish round her house. She looked so beautiful that he determined to go down to the earth and talk to her, and in order to descend, he called on some rain to come. In this rain he reached the earth, and after a talk with Sina, they agreed to get married. They then started off for his house, which was at some distance.

As they passed along the road Sina noticed some sugar-cane

\* This story was said to have come from Samoa.

growing near by, and she said she would like some. Tui o le Mu said, "All right, you can help yourself," and this she did. Presently she saw a Togatoga tree, from the leaves of which one kind of *titi* is made, and she said she wanted to make a *titi*. Again Tui o le Mu told her, "All right, help yourself," so she made herself a *titi*. Further on they came to a Pua tree, the flowers of which are made into necklaces, and she said she wanted a necklace. Tui o le Mu's answer being the same, she sat down and made a necklace. After this, on passing a coconut tree, Sina said she wanted to make a hat, and this she did on obtaining Tui o le Mu's permission. Lastly they came to a well, the water of which was red, and Sina said she wanted a bath. When this wish had been gratified they continued on their journey and reached Tui o le Mu's house without any further delays.

As Sina entered the house she looked overhead and was horrified to find that all round inside there was a row of skulls. Tui o le Mu did not notice her fright, and went up overhead inside the house and took his own head off! Sina thereupon fainted, but was quickly restored by Tui o le Mu with his head duly replaced. So they settled down to live there.

After a while Sina said she would like to go and pay a visit to her parents and to this Tui o le Mu agreed, but he warned her that it would be dangerous to accept any invitations to go into houses to rest on the way. Sina promised to be very careful and started off. As she passed through the first village, people called out to her and asked her to come into their houses for a rest and to drink a coconut. Remembering what Tui o le Mu had said, however, she would not stop. Presently she came to another village—that in which Tinilau lived—and both he and others called to her to come and rest awhile. As she did not stop Tinilau became angry and called upon some of the young men to go and catch Sina and bring her to his house. This they did and Sina, though frightened, could do nothing but stay in Tinilau's house.

Tui o le Mu, however, had been watching her, so during the night when all were asleep, reached into the house, lifted her out and carried her home. Shortly afterwards she woke up but thought he was still in Tinilau's house, and Tui o le Mu asked her to tell him something by which she would know where she was. Just at that moment some cocks started crowing outside, and Sina said, "The cocks at Tui o le Mu's home crow like those I have just heard." So she slept again. In the morning she looked up, and seeing the skulls round the house, she knew she was at home again. Tui o le Mu was angry and said, "I told you not to go into any house on the way to your parents' home, but you disobeyed me," but when he heard Sina's explanation he forgave her.



Later on he gave her permission to start on her journey again but this time he insisted on her travelling by canoe. By this means she reached her parents' home safely.

#### HOW COUNTING CAME TO BE AS IT IS.

Sina, who lived in Fakaofu, had one daughter also named Sina and ten sons. The names of these sons were Ulu, Iva, Valu, Fitu Ono, Lima, Fa, Tolu, Lua and Tasi.

Now Sina, the younger, had been taken away to Fiji as a child and as years went by her mother grieved for her. Accordingly her ten sons said they would build canoes and go in search of her. So each one went off into the bush to cut timber and to build his canoe, and as Ulu went along he came across two persons fighting. These were Sinota and Te Gata (the snake). Te Gata had, at this moment, got Sinota by the throat, and the latter called to Ulu to come and help him. Te Gata at the same time warned Ulu not to interfere, and Ulu was frightened and went on his way. Presently Iva came to this spot and Sinota called to him for help, but Iva also was scared of Te Gata. Each brother in turn was appealed to for help, but all passed by until Tasi came along.

By this time Sinota was nearly dead and, he could barely make Tasi hear his call for help as he passed. Tasi, without waiting to hear what Te Gata had to say, at once ran up and cut off his head. When Sinota had recovered he thanked Tasi for saving his life, and then helped him to build his canoe. First he showed him where the best log was, then he called to the insects to come and help cut it out. He called to the bees, also, and told them to make the sail.

By the time Tasi's canoe was finished all his brothers had started and their canoes were nearly out of sight. He thereupon called on Lua's canoe to stop, and this it did, so he passed it. Then he called to each of the other canoes and so passed them all.

Thus he arrived first at his sister's home in Fiji. He told her that he and his brothers had come to take her home to see her mother who was very sick, but Sina became frightened because she was married to a very fierce and terrible cannibal named Saipunian and knew she would not be allowed to go away. So Tasi thought of a plan and said, "I know a trick. In the middle of the night you must tell your husband that you are very hot and want to go outside to get cool. If he is suspicious offer to tie a piece of twine to your wrist and leave the end with him." This plan succeeded, and soon as Sina was outside the house, she tied her end of the twine to the branch of a tree, and ran off with Tasi.

Presently Saipuniana pulled the string and called to his wife to come back. There was no answer, but as he heard the noise in the tree when he pulled he thought Sina was there safe. At last



pulled so hard that he broke off the branch of the tree, and then discovered he had been tricked. When daylight came he saw a canoe far off and sailing from the land, so he guessed this was Sina running away.

He then called on the Mist to come and help him, as by its help he was able to run over the sea. Tasi, however, saw him coming and called down heavy rain in order to chill him. This proved successful, and when Saipuniana came up with the canoe he was so cold he could do nothing but crawl into the bottom of the canoe where Tasi rolled him up in a mat. Then, whilst Saipuniana rested, Tasi sewed up the mat and tied a large stone to it. Presently he said, "Let me move you, the canoe is leaking in the place where you are lying." So he lifted him up, but instead of putting him down in the canoe again, he dropped him overboard. Thus Saipuniana was drowned.

These matters had delayed Tasi, so his brothers' canoes had all passed him and reached Fukaofa before him. Their mother was waiting on the reef for them, and as each came ashore she asked if her daughter was in his canoe. When each one down to Lua had given her the same reply, "No," she determined to drown herself. Just as she was about to do this she saw Tasi's canoe coming, and decided to wait for his answer. Then she found that her daughter was after all safe and in Tasi's canoe, so she ordered a feast to be prepared, with much rejoicing, and she said to Tasi, "Now I know which is the first of all my sons. In future you will be number one, and all the others come after you."

And so counting became reversed and the numerals now run Tasi, Lua, Tolu, Fa, Lima, Ono, Fitu, Valu, Iva and Sefulu.

#### WHY THE LIGHTNING PRECEDES THE THUNDER.

A long time ago there was living a giant bird whose name was Veka. This bird used to destroy and eat men.

There was also living at this time a woman named Mea, whose husband was dead, but whose three sons lived with her. These three sons were Faititili (Thunder Clap), Tagulu (Distant Thunder) and Te Uila (The Lightning). One day when her sons were out fishing, each in his own canoe, Veka appeared at Mea's house and asked where her sons were. She told him they had gone out fishing so Veka said he would return later when they were at home, and eat them all.

By and by Faititili came ashore and on reaching his mother's house found her crying. She told him what the trouble was, but he said, "All right, give me my *titi*, my shell necklace and my club and will go and kill Veka."

When prepared he set out to find the bird, and as soon as he found him, attacked him with his club.

Veka, however, merely spread one wing over him, which so frightened him that he lay down as if dead. Later on Tagulu arrived home, and when he heard the trouble said he would go and kill Veka. Precisely the same thing happened to him as to Faititili, and Veka covered him up with his other wing.

Then Te Uila reached his mother's house and at once armed himself and sallied forth. He had no fear when he encountered Veka, and as the bird spread out his wing to smother him struck a quick blow which broke the wing. Veka then tried to do the same thing with his other wing but Te Uila broke this in like manner. Then Te Uila struck the bird in the throat and so killed him.

When Veka was dead he ran home to his mother and told her everything was quite safe now, after which he returned and dragged his two brothers to the house where presently they recovered.

Mea then told Faititili and Tagulu to go and pluck the bird and build a fire to cook him. This they proceeded to do, but at each job they were so slow that Te Uila had to go and hurry them up. Everything that Te Uila did was done quickly.

So the family had a feast, and when it was finished Mea called her three sons before her and said, "You, Faititili, my eldest son, and you Tagulu, my second son, have shown that you wanted your brother's help to kill Veka, to pluck him and to cook him. In future, therefore, he will come first in my family and you will come after."

That is the reason why the lightning always precedes the thunder now, although this was not the case previously!

#### HOW FIRE WAS INTRODUCED.

Lu, the son of Iikiiki, wanted to introduce fire into the world but did not know how it was made. One day he came across an old "devil" named Mafuike who was sitting on the ground asleep, and leaning against a log from which smoke was coming out.

Lu decided to steal the log—and so the fire—and he snatched it up and ran off. Mafuike, however, chased him and caught him and they then had a fight. At first Lu allowed himself to be thrown this way and that, until Mafuike, who was old, was tired out. Then Lu suddenly exerted his strength, and seizing Mafuike by the throat held him thus until he promised to give him the secret of fire.

So Lu released his hold, and Mafuike instructed him in the art of obtaining fire by rubbing two pieces of wood together.

Thus did the knowledge of how to make fire reach the world.

## HOW FRESH WATER REACHED FAKAOFU.

At one time there was no fresh water in Fakaofu, so the local "devil," by name Semoana, went over to steal some from the island of Nukunonu. As he was leaving with it he was chased by the "devil" of Nukunonu, who tipped up the earth he was carrying it on, and so spilt some on the islets of the eastern fringe of Nukunonu.

What was left, however, reached Fakaofu safely, and Semoana put it on the islet which is now inhabited.

NOTE:—The best fresh water of these two islands is found on the eastern edge of Nukunonu and the islet where the village is built in Fakaofu, on the western side of the atoll.

## THE FAISUA. A STORY OF VAVAU.

Close to the mouth of a certain river in Vavau, and in the channel used by canoes on their way out fishing, there lived a large Faisua (Bear's-paw Clam). Normally it remained closed when the canoes were passing, but whenever Tinilau's canoe came along, it would open out and swallow the back-wash water from Tinilau's paddle. As the Faisua was a female, this had the effect of giving her a child, and in due course a girl was born whom she named Sina.

Years passed by and Sina grew into a beautiful girl, and she became curious to know who her father was. When she learned from her mother the circumstances of her birth, and that Tinilau was her father, she decided to go and see him. So she went off ashore, and coming to Tinilau's house went inside and sat down by him. Tinilau wanted to know who she was and who her parents were, and Sina told him that he himself was her father and that her mother was the Faisua who lived in the canoe passage. Still Tinilau did not understand until Sina explained the whole matter to him.

Now Tinilau had a lot of relatives whose names were "Old Tree," "Old Basket," "Old Mat," etc., etc., and these were sitting round about his house, and saw the beautiful girl Sina sitting inside with Tinilau. Scenting a scandal they thought of a trick to play, and this consisted of arranging with the people to give out an order that on the morrow all mothers had to be shewn!

When Sina heard this she was ashamed and cried, and told Tinilau she would have to go and tell her mother about it. On hearing what was to happen, however, the Faisua was not a bit upset and told Sina to go and make a basket and bring it to her. This done, she loosened herself off one side of her shell and this fell off; then she worked off the other half, and climbed into the basket. She then gave Sina careful instructions as to what she should do. First, she was to be very careful to keep the basket closed the whole time; she was to carry it ashore, go up the river some distance above

the village, then dive into the current and still holding the basket in her hand, allow it to drift down to the sea. This was to be repeated and the second time, on reaching the river's mouth, she could open the basket.

Sina was very careful to obey these orders, and on opening the basket found her mother transformed into a beautiful woman!

So they went ashore together and dried their hair in the sun. Then they made themselves *titis* and necklaces, and rubbed their bodies with sweet-scented oil.

It was now the time of the "showing of mothers," and Sina and her mother proceeded to the village where a dance was in progress. Here they found Tinilau keeping time for the dancing by beating a wooden board with two sticks, but as soon as he saw Sina's mother he at once fell in love with her, and dropping his two sticks, started up to catch her.

Sina and her mother thereupon ran away, and before Tinilau could catch up with them Sina's mother had reached her shell. She immediately transformed herself into her previous form, slipped inside and closed the shell.

At this Tinilau became very angry and seizing a piece of Puapua (soft wood) tried to force open the shell with it. The piece of wood broke so he went and fetched a piece of Kanava (hard wood), but had no better luck with this. Finally he got a piece of 'Toa (very hard wood) and with this he succeeded in gouging out the fish, which he then carried ashore.

Now at this time all the shells of the sea had no fishes in them so Tinilau broke up the Faisua into small bits, and to each, beginning with the Pearl Shell, he gave one bit. Thus did all the shells of the sea become alive, with fishes in them.

#### TUIFITI AND HIS DAUGHTER TUIFITI.

Tuifiti lived in the sky and his daughter lived with him. At one time food became very scarce up there, and the people were nearly starving. On this account the girl Tuifiti decided to come down to the earth to see if she could obtain help.

When she reached land, however, she was so exhausted and thin that she fell into a rubbish heap, and as people continued to throw rubbish on the heap she was soon covered up and buried in it.

There lived close by a family consisting of two brothers Moen and 'Tafaki, and two sisters Papua and Sigano.

One day when Papua was throwing some rubbish away she heard someone crying underneath the pile, so she dug into the heap and discovered the girl Tuifiti. By this time the girl was very small, weak and thin, so Papua carried her home where the two sisters nursed her back to health.



In time she grew quite strong and developed into a very beautiful woman, whereupon both brothers fell in love with her. By this time her father, Tuifiti, was searching everywhere for her. His method of search was to lower down to each island in turn a rope with a wooden seat attached to the end of it. Eventually the seat was lowered on to Fakaofu, and landed close to where the girl was sitting. The two brothers, who had been fishing, were asleep near by.

Now the girl did not want to miss this chance of getting home, on the other hand she wanted to speak to the two brothers and tell them where she was going before she started. She also intended to give them one each of her porpoise teeth, and to let them divide up her pearl shell between them. She therefore jumped on to the seat to show that she was there, then jumped off again before her father could pull up. Then she called to Moenī and Tafaki, but they were so tired that they did not hear her. Trying the same trick again she was too late in jumping off the seat and so got hauled up to the skies.

As she went up and up she started crying for three things—to be able to give her porpoise teeth away, to be able to divide up her pearl shell, and to let the brothers know where she was going.

By and by the brothers woke up and found that the girl had vanished. They searched the whole island, but to no purpose, so decided that she must have left Fakaofu. Accordingly they determined to follow and find her wherever she might be.

Tafaki set off to the west, and when he reached the horizon, was eaten by a shark—as indeed the sun is eaten every evening when it sets there!

Moenī, on the other hand, made for the east, and was able to climb up into the sky by this route. On his arrival in the sky he became frightened, especially when he saw that the chief, Tuifiti, was holding a court.

Tuifiti sat at one end of his house and with him sat his daughter. Along one side of the house sat the Faipule (councillors), and at the further end were some large dry coconuts, split but not broken up. In order to avoid being detected Moenī slipped inside one of these nuts.

Presently one of the Faipule picked up this particular nut and rolled it along the floor to another Faipule. He in turn rolled it along to another, and so on until it reached Tuifiti. The girl Tuifiti, however, had detected Moenī inside, so she picked up the nut and took care of it.

That evening Moenī and the girl had a long talk and tried to make plans for the future, but they could decide on nothing. Before they parted, however, he cut off a lock of his hair which he gave her to keep.



On the next day her father happened to notice this lock of hair and demanded to be told whose it was. His daughter refused to tell him, so he called all the men of the place before him and compared the hair with that of each. It did not match any one's, so he asked the Faipule if they were quite sure that all the men of the place had been brought to the court.

One of them then remembered having seen a stranger about, so Moenī was caught and brought up. When it was seen that his hair matched the lock, Tuifiti became very angry but was at length pacified by his daughter, who said she would marry no other man. So Tuifiti gave his consent to the marriage, but where Moenī took his wife to live is not known.

#### THE STORY OF THE PEARL-SHELL.

There was a woman named Magamagai Matua who was in the habit of going down to the beach each morning and evening as the sun was rising and setting, and standing naked in the sun's rays. By this means she had a son who was called "Kalokalo o le La," as the sun was his father.

By and by the boy grew up, and when he became of marriageable age it was decided that he should marry the daughter of Tuifiti, the Head chief of Fiji, so he set off on his journey thither for this purpose.

First, however, he decided to visit his father and inform him where he was going. Accordingly he went to a very high tree in order to climb up it and speak with him. When he reached the foot of the tree he found an old blind woman sitting there, who had with her one large *talo* with eight small ones attached to it.

Kalokalo was hungry, so he crept up quietly, and as soon as the old woman broke one of the small *talos* off to eat it, he did the same. This went on until they were all finished, but during the eating the old woman kept counting them, and each time she found one short she got very excited.

Kalokalo, whose conscience then pricked him, suddenly clapped his hands and this so surprised the old lady that she opened her eyes! They then became friends and the old woman addressed Kalokalo as her grandson. He told her what he intended to do, and she warned him of the dangers of climbing this tree.

She told him that first he would come to a place where there were many insects, but that he was to hold tight to the tree and take no notice of them when they bit him. Then he would come to a part where there were numbers of crabs which would pinch him, but still he must take no notice. After that he would reach a place where the wind would be blowing very hard, and here he would have to hold on to the tree very tight to prevent being blown off. After thanking the

old woman Kalokalo started his climb, and having successfully combated the different perils, reached a peaceful part of the tree after a hard struggle. He was then so tired that he lay down on a branch and went to sleep.

When he awoke he saw that the sun was about to set so he called out and asked him to wait a little. The sun stopped and said, "Who are you and what do you want?" Kalokalo replied, "I am your son and the son of Magamagai."

The sun said, "Very well, where are you going?" and Kalokalo told him he was on his way to Fiji to marry the daughter of Tuifiti. Then the sun said, "I will give you a present, but on no account must you look at it until after you are married." He then instructed Kalokalo to go down from the tree and go to a certain place where he would find a house spinning round; it would also cant up to one side every now and again. When it did this he was to slip inside, and in order to come out again he was to seize a similar opportunity. By carefully obeying these instructions, Kalokalo obtained from the house a small bundle which was well tied up.

In course of time he reached Fiji, and as he landed on the reef his curiosity got the better of him and he decided to see what the bundle contained. He therefore undid the wrapping and discovered a beautiful pearl-shell which reflected the sunlight so intensely that the sun himself complained of being dazzled!

Then the sun became angry, and because he had been disobeyed, ordered the sharks to come up and eat Kalokalo.

This was done; Kalokalo was eaten, and the pearl-shell fell into the sea.

Thereupon the bonito attacked the shell and ate off all the very bright part, leaving only one piece which was too thick for them. This one piece sank to the bottom and by chance landed on top of Tuifiti's fish-trap.

When Tuifiti came along and lifted his trap he found this piece stuck in the top, and recognizing it as a portion of the wedding present for his daughter's marriage, he took it home and shaped it into a spoon-bait for fishing.

By and by Tuifiti's daughter, Sina, married a local chief by name Lakulu, and to him was lent the pearl-shell bait to be tried. It proved so successful that Lakulu decided to steal it, and run away with his wife and several others. The plan of escape came to the ears of Tuifiti, however, who thereupon warned Lakulu that if he carried out his scheme and ran away on account of the pearl-shell he and all his party would be drowned, with the sole exception of Sina. This warning was not heeded by Lakulu, and he and his party set sail in canoes, taking the shell with them.

They had not been long at sea before a storm arose and one after another the canoes were broken up and sunk, leaving the whole party swimming. One carried the precious shell.

After a while this man became tired, and calling to one of the others, he handed him the shell, and sank.

Presently this man became tired also and so in turn each member of the party, until only Sina was left.

Sina just managed to crawl out onto the reef with the shell in her possession, and there, shortly afterwards, she gave birth to a son. Him she called Tautunu, and she took him home to her father.

As the boy began to play with things his mother gave him the pearl shell as a toy. Unfortunately, but not fatally, he swallowed it. In due course it was recovered and Sina put it away for a while.

When Tautunu became old enough, the shell was formally handed to him to make use of as a fisherman. He, however, did not know how to secure it to his line and put it on the wrong side up.

A lizard was watching, and at once passed the word that Tautunu's hook was tied on in the wrong way, to a certain square-shaped fish which lives close to the reef. This fish passed the word on to the Tautau, a fish living a little further out, and he in turn told the bonito. The result was that when Tautunu went out to catch bonito, he caught none.

On reaching home he asked his mother what was the matter, and his hook was quickly put right. This was again observed by the lizard who thereupon passed the word out to the bonito that all was correct this time. Consequently, on his next fishing trip, Tautunu caught many fish.

One day, when out fishing, Tautunu became disgusted by some decaying matter which drifted close to his canoe. Thereupon he took his line off the rod, and throwing the rod overboard, went ashore. When he landed he put the line and pearl-shell hook on the beach while he went in for a swim, and on coming ashore again, forgot all about them. On reaching home he remembered and hurried back, but he never found them again.

The fact was that they had been stolen, the line and shell itself by the crab (he has them now), the lobster took the feathers off the shell (he wears them now), and the Ali (a flat-fish) took the point of the hook (he wears it under his chin now).

In the days when Tautunu was fishing the bonito were to be found at no great distance from the shore, but nowadays they are always at a much greater distance. The reason of this is that Tautunu's rod drifted away out to sea when he threw it away, and the bonito followed it.

## A STORY OF THE STARS.

There were once two brothers Kupega and Kakau, of whom Kupega was the elder.

Each had a family of two sons, but, whereas Kupega's sons were weak, Kakau's were strong. Kakau had also had a daughter by name Sina, but she had been stolen. The names of Kakau's sons were Filo and Mea.

Because of this, Kupega became very jealous and planned to get his nephews killed. So he pretended he was sick, and when his brother Kakau came to see him, told him that the only thing which would do him any good was a certain wild fish called Sumu. Kakau, therefore, called up his two sons and told them to catch this fish.

The plan of the two boys was to feed up the fish with coconuts and rubbish until it became sluggish, then to call upon a large wave to land it on the reef. This was entirely successful, so Kupega had the fish to eat, without harm to the boys.

Some time after Kupega again pretended to be sick and on this occasion declared that nothing else would do him any good but a certain wild bird which lived in the bush, by name Matuku. By their father's instructions Filo and Mea went out to kill this bird, and first they went to his house. What was their surprise when they got there but to find their long lost sister Sina in the house, and that she had married Matuku!

The bird was away at this time but presently they heard him coming home. Sina said, "Hide," but Filo said, "First we must make a plan: What is the first thing he asks for when he gets home?" Sina said he always asked for a drink. "Don't fill the coconut shell quite full then," said Filo, "so that when he drinks he will have to throw his head right back."

Sina agreed and the two brothers hid—Filo climbing up into the roof and Mea getting under a half-made mat which was on the floor.

On Matuku's arrival, with two dead men whom he had caught for food, he as usual asked for a drink which Sina handed him in a coconut shell only half-full. As he threw his head right back to drink this, Filo struck him from above with his club. At the same time Mea jumped up and struck him from below. In this manner was Matuku killed.

The two brothers and Sina then discussed the question as to how they should go home, and it was agreed that Filo should carry the bird and that Mea should carry Sina. So they started and in due course reached the reef near their father's home.

Now on this reef was a very dangerous fissure which had to be crossed, and in which the water swirled this way and that. Filo went in first with the body of Matuku, but the weight was too much



and he was dragged down and drowned. Mea, who tried to rescue Filo, was drowned as well, but before he jumped in he told Sina that if they lost their lives she would always be able to see them in the sky as stars. Thus Sina was the only one of the three to reach home.

What her brother had told her proved to be correct, and ever afterwards on looking into the sky in the direction of Samoa she could see, not only her brothers, but Sumu and Matuku as well.

If one looks in the sky now, in the direction of Samoa, one will see certain stars which rise in the following order. They are Sumu, Matuku, Filo and Mea and by them one can find one's way to Samoa from Fakaofu.

#### CONCERNING AFĀ.

Apparently Afā was a supernatural being who was more than half "devil," and although he does not always seem to have been evil, the tales about him would lead one to believe him quite "devil." Another name he sometimes went by was Toikia, and I was told that he was more generally known by this name in Fakaofu. On another occasion I was told that he was known only by the name Toikia when he was not doing evil. The general word for a spirit or devil is Aitu, and the priests or sorcerers are called Taulāitu.

One story about Afā was told me thus:—

"Afā was an Aitu and lived in the sea, but he also visited the land occasionally. He was in the habit of stealing the "spirits" out of the bodies of men and eating them.

When the people saw a house floating on the waters of the lagoon they knew it to be a sign that Afā was out after food. So the people complained to the Taulāitus, who then held a meeting to decide how they could catch Afā. Having made their plans all the Taulāitus, except one, swam out into the lagoon and formed a circle, holding hands like a net.

At this time Afā was in his canoe shed. The one Taulāitu still left on shore then went to Afā, and by a trick persuaded him to come out for a swim. He guided Afā to where the others were and managed to push him into the circle when they all set upon him and proceeded to drown him. As they pushed him under they sang, 'E puse, e puse.'

When Afā was dead they brought the body ashore and carried it to the open space in the middle of the village. This place was called 'Malai o fakafotu,' and is where the Falefono now stands. On reaching this spot they threw the body down and this made so much noise that all the people of the island heard it.

They then cut the body open and so recovered all the 'spirits' of the men whom Afā had eaten. These 'spirits' were handed to one particular Taulāitu who returned them to the relatives, and so to the people to whom they belonged.



The Taulāitu then informed the people that the reason all these spirits had been taken by Afā was because they had been fishing with rods at a certain place.

Afterwards, however, these spirits all got lost again, but the Taulāitus said, 'never mind, let us all go and have a swim!' This was not the end of Afā, who came to life again and returned to the sea."

The above was told as one tells a fairy tale, and there was much merriment during the telling. There was no question of taking the story seriously, although the old man did add that his mother had told him that she herself heard the noise of Afā being bumped in the Malai! He laughed when he told me this.

[The foregoing paper by Mr. Burrows is one that reflects much credit on the writer. The acquisition of so much interesting data in so brief a period of time shows not only interest in the work, as displayed by the collector, but also the industry and application that are necessary in order to gather such information.

This paper records local versions of certain interesting and widely known Polynesian myths: The stories of Sina, the Hina of New Zealand; connect her with Tinirau, as in the Maori version, and her connection with the moon is here shown in her giving birth to the ten lunar months. Here we have an allusion to the old ten months' year of the Whare-patari legend. The names of the months seem to point to Samoan influence, or the reverse. The Maui brothers also appear.

In Ikiiki one is tempted to recognise Tikitiki *alias* Maui, he who procured fire from Mahuika, and the latter also seems to appear. Mafuika is one of the Polynesian variants of this name, and Tregear gives it as the Fakaofu form.

The name of Mangamangai matua is evidently the Mangamangai matua of Maori myth, while Kupenga and Kakau are both Maori star names, and Humu is a constellation at Hawaii.

The notes on canoes and on the old time voyages to the Samoan, Tongan, Cook and Fiji Groups are of special interest. It is to be hoped that the writer will continue his good work in collecting information concerning the isles and peoples of the Great Ocean of Kiva.

Takopia (p. 149) may be Tikopia Isle, north of the New Hebrides. Sikaiana is Stewart Island. Nukunonu is usually written as Nukunono. Te Lupe recalls Rupe of Maori myth, and his search for his sister Hina. Truly these are Maori stories. Observe the act so often credited to *taniwha* in Maori myth, the tying of a string to a suspected wife (p. 162). In the story of Moeni, Tawhaki (Tafaki) seems to be connected with the sun, whereas in Maori myth he represents lightning.—ELSDON BEST.]

# GILBERT ISLANDS WEAPONS AND ARMOUR.

BY G. M. MURDOCH.

Kuria, Gilbert Islands.

## WEAPONS.

1. TEUNUN (shark's tooth spear), from 12 to 18 feet long. Used in tribal warfare and in family and other feuds resulting in fighting. As a rule in tribal war the spearman was attended by a henchman armed with a *Taumañaria* or *Teie*, Nos. 5 and 6. The henchman generally preceded the spearman, engaging the henchman of the opponent spearman, the spearsmen then became engaged fighting side by side with their attendants, who assisted them by catching or fending off the spears by their weapons. The vulnerable parts of the body exposed were the arms, legs, armpits, between the legs, the face and throat. The names of weapons and manner of use varied considerably in the three districts of the Gilbert Islands—North, Central and South. Those given here are from the Central Gilberts. On breaking or discarding the spears, the spearsmen and their attendants used their *Tembo* (sword club) or *Toañoa* (shark's tooth sword club), Nos. 3 and 4, to finish the encounter which usually ended fatally.

2. TEMARAN AND TABOUA (long, smooth spears), from 12 to 18 feet long, made of coconut wood,  $1\frac{1}{4}$ " to  $1\frac{1}{2}$ " in diameter in the centre and tapering to a fine sharp point at each end, which was used in the same manner as the shark's tooth spear, but which could be used both in front and rear.

3. TEMBO OR BATIRAKU (sword club, either round or with four sharp edges  $\diamond$ ), 2 feet 6 inches to 3 feet long. Used in infighting and hand to hand encounters.

4. TETOANEA OR TEWINNAREI (shark's tooth sword club), 2 feet 6 inches to 3 feet long. Used in infighting and hand to hand combat.

5. TETAUMANARIA (branched spear), 14 to 18 feet long. Used by the attendants of spearsmen who engaged one another, and also assisted the spearsmen by catching or fending off the spears with the branches.

The staff, like nearly all Gilbert Islands weapons, is made of old well-seasoned coconut wood, and the branches of a hard wood *tenea* resembling *Ti-tree*, the points of the branches were sharp, and with the sharp point of the spear were used as a weapon.



Figure 11.—TERONIKIRI.



Figure 1.—TEUNUN.



Figure 12.—TEBUTU.



Figure 4.—TETOANEA.



Figure 7.—TEKOROMATAN.



Figure 8.—TEBAKABOTA.



Figure 9.—TETARA.



Figure 6.—TEIE.



Figure 5.—TETAUMANARIA.



Figure 10.—TEAUABUBUTI.

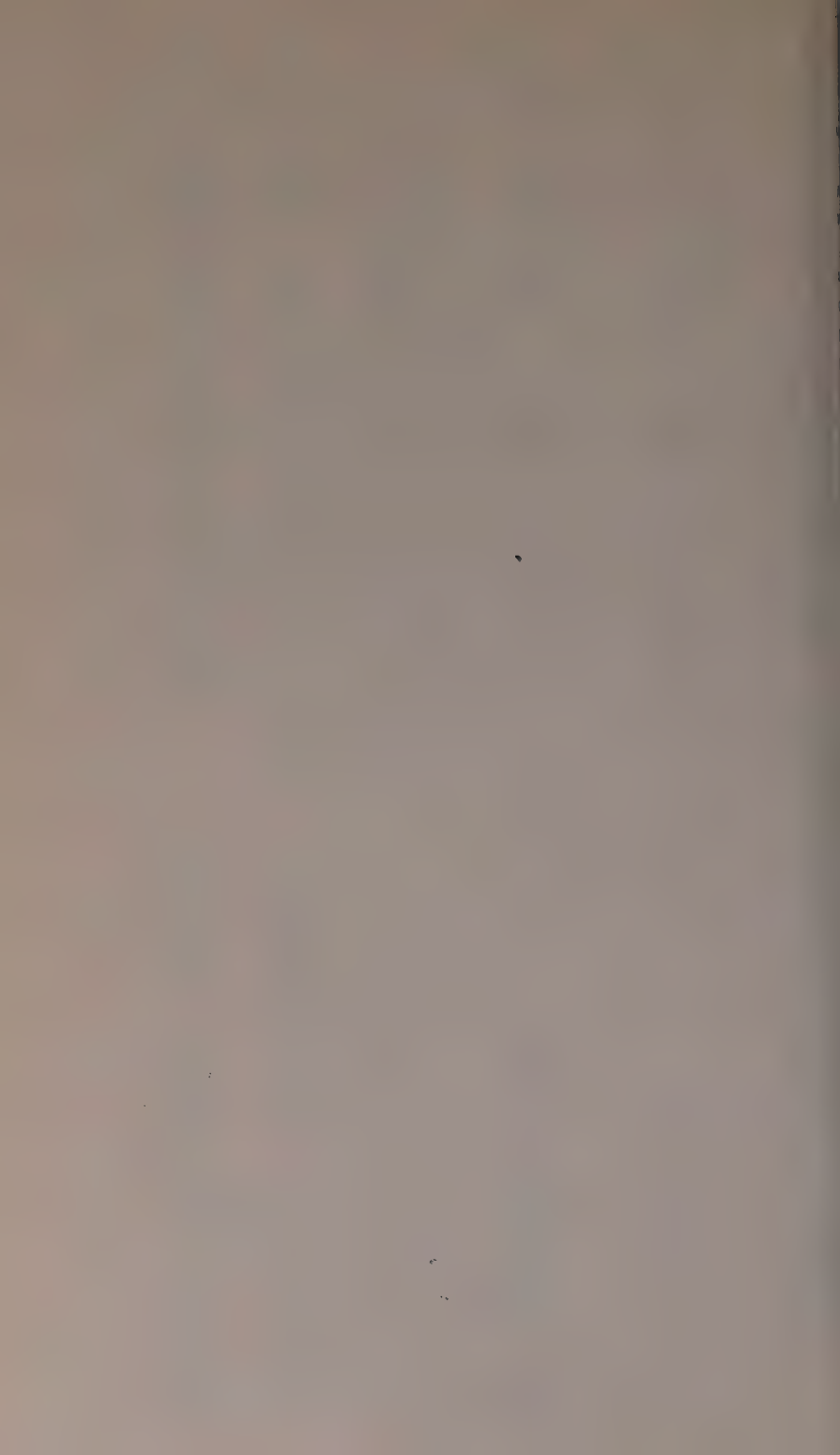


Figure 2.—TEMARAN AND TABOUA.



Figure 3.—TEMBO OR BATIRAKU.





6. TEIE (branched spear), 12 to 14 feet long. Made of the same woods and used in like manner as the *Taumanaria*.

7. TEKOROMATAN (throwing stick), 3 feet to 3 feet 6 inches long. Made of coconut wood or mangrove, and pointed sharp at each end. Used for throwing.

8. TEBAKABOTA (sting-ray spear), 4 to 5 feet long. Made of coconut or mangrove wood, with the serrated bones of the weapon of the sting-ray tied in a cluster on the end and used as a spear. The bones were also burnt, on occasion, to make them brittle and break in the flesh.

9. TETARA (barbed spear), 7 to 9 feet long. Made of coconut wood, with the barbs cut out of the wood, sometimes made of mangrove. Used as a throwing spear, also in hand to hand encounters.

10. TEAUABUBUTI (double-ended spear), up to 14 feet long. Made of hardwood, coconut or mangrove, with a sinnet line from end to end near the point, and travelling loosely in a loop of sinnet held in the left hand. It can be used both in front and rear.

11. TERONIKIRI (lasso rope and stick), 2 feet long. Made of hardwood, with a strong coir sinnet line fastened to the centre. Used to lasso the arms or legs. A turn of the line is taken round the arms or legs to the wood which is then twisted as in a "Spanish windlass," rendering the victim helpless.

12. TEBUTU (cutting or scratching weapon), from 4 to 6 inches long, with from one to four shark's teeth fastened to it, and string of coir sinnet arranged as a loop to put one or more fingers through. Used by the women to cut and disfigure each other when quarrelling from jealousy or other causes.

13. TEBANA (boxing gloves) made of coir twine or sinnet, woven plaited hard, especially on the knuckles, resembling a "knuckle duster."

## ARMOUR.

TEOTANA.—Trowsers made of coir twine or sinnet, knitted or woven.

TETUTA.—Jersey made of coir twine or sinnet, knitted or woven.

TETANA.—Coat made of plaited coir twine, with a high back piece to protect the head, worn over the Tuta (Tetuta).

TEKATIBANA.—A band of woven coir twine, or dried ray skin, from 7 to 10 inches broad, worn round the body, over the abdomen, as protection from spears.

TEBARANTAUTI.—A helmet made of the inflated porcupine fish skin.

TEBARATEKORA.—A skull cap made to fit the head closely, of knitted coir twine, about  $\frac{3}{8}$ " or  $\frac{1}{2}$ " thick, to protect the head from blows from the *Tembo* or *Batiraku* or *Toanea*.



## CONSTITUTION OF BOARD OF MAORI ETHNOLOGICAL RESEARCH.

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ON behalf of the Polynesian Society we beg to offer our congratulations to the Hon. Native Minister, Maori Members of Parliament and Departmental Officials, for carrying through legislation which will be the means of materially assisting Ethnographic Research in this Dominion and the Mandated Territory in the Pacific. Our special thanks are due to the Hon. A. T. Ngata, M.A., for piloting the measure through the House, and also for his unflagging interest shown in the work and aims of our Society in the past.

We can now look forward to an assured revenue in carrying out Ethnographic work, and it is greatly to the credit of the Maori branch of the Polynesian race that such pecuniary assistance has been secured. Time and again has this Society approached succeeding Governments of the Dominion for financial assistance to help in placing on record valuable original information dealing with the lore of the Maori people, but with scant success. It has remained, however, for our Maori friends to lead the way in establishing the means by which a permanent scheme of financial assistance is assured in aid of this work, within New Zealand and the Pacific generally. A grant, at the rate of £300 per annum, has already been arranged for by the new Board towards the expense of publishing the Polynesian Journal, and also the promise of substantial help in other directions.

For the information of our Members, we quote from the legislation referred to, and the regulations bearing thereon. It is to be found in Section 9 of the "Native Land Amendment and Native Land Claims Adjustment Act, 1923."

Section 9 reads:—

(1.) There shall be a fund established, to be called the Maori Ethnological Research Fund (herein called the said fund), to be held in the Native Trustee's Account.

(2.) The purposes of the said fund shall be the promotion of the study and investigation of the arts, language, customs, history, and traditions of the Maori and cognate races of the South Pacific Ocean, the collection of records pertaining to any of the said races, and the publication or preservation in any way of any matter or thing in connection therewith that the Board of Maori Ethnological Research hereinafter referred to may deem necessary or desirable. If a question arises whether any such matter or thing is within the scope of this section, the same shall be determined by the Native Minister.

(3.) As a part of the said fund the Native Minister may, from time to time as he thinks fit, requisition any District Maori Land Board out of the interest received by it, or the Native Trustee out of his Profit and Loss Account, to pay to the said fund any sum or sums that he may think fit in any one year, and the said Maori Land Boards or Native Trustee are authorized to pay the sums so requisitioned accordingly.

(4.) (a.) For the purposes of this section and of administering the said fund there shall be a Board to be called the Board of Maori Ethnological Research (hereinafter referred to as the said Board).

(b.) The said Board shall be a corporate body with perpetual succession and common seal. The Governor-General may make regulations for the constitution of the said Board and the conduct of its business, and for the administration of the said fund, and generally for such other purposes as may be necessary to give effect to this section.

(c.) The regulations may authorize the payment by the said Board of subsidies or assistance to any publication, society, or person, which, in the opinion of the Board, will tend to assist and promote the purposes of this section.

(5.) Any Board, local body, corporate body, company, trustee, or person may contribute to the said fund for the purpose of furthering the objects thereof, and any payment, gift, or donation shall be deemed to be a payment which might be legally made, anything in any Act to the contrary notwithstanding. Any sum or article donated or bequeathed shall not be liable to payment of any stamp, succession, or other duty. All sums of money received by the said Board shall be paid to the said fund. All articles received by the said Board shall be disposed of as the regulations provide, or as the Board determines if there should be no regulation governing the matter.

We give these portions of the regulations dealing with the appointment, etc., of Members of the Board, and the administration of its funds.

#### MEMBERS.

2. The Board shall consist of the following members :—

(a.) The Native Minister, who shall be Chairman.

(b.) The Under-Secretary of Native Affairs, who shall be Deputy Chairman.

(c.) The Under-Secretary of Internal Affairs.

(d.) The Members of the House of Representatives for the time being representing the Māori race.

(e.) Such other persons as may from time to time be appointed in that behalf by the Native Minister.

3. For any cause which may seem to him sufficient, the Native Minister may, by writing under his hand, remove from office any member appointed under paragraph (e) of the last preceding clause. Any vacancy caused by the death, resignation, or removal of any such member may be filled by the Native Minister.

4. The powers of the Board shall not be affected by any vacancy in the membership thereof.

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#### ADMINISTRATION OF FUND.

20. A sum not exceeding £5 may at any time be advanced to the Secretary, who shall account therefor to the Board, for the purpose of paying postages, telegrams, and other incidental expenses.

21. The Board may pay all reasonable expenses incurred by the Board, including the actual travelling allowances and expenses of its members and officers, and any remuneration it may allot to its officers. The expenditure under this head shall not in any financial year exceed £100, except with the consent in writing of the Native Minister.

22. The Board may undertake the promotion of the purposes and objects defined by the said section in such manner, by such means, and under and subject to such terms and condition as in its discretion it thinks expedient or desirable.

23. In particular the Board may, for the purposes of the said section—

- (a.) Undertake the publication of any matter, document, or record ;
- (b.) Enter into contracts with the Government or any person with regard to payment of the cost of any printing, drawings, sketches, copy-right, royalties, or other charges ;
- (c.) Purchase books, periodicals, manuscripts, drawings, photographs, or articles ;
- (d.) Make payments of subsidies or assistance to any publication, society, or person which in the opinion of the Board will tend to assist and promote the purposes of the said section ;
- (e.) Make payment of subscriptions to kindred Boards or societies in any part of the world, or of any fees that may be necessary to obtain registration or recognition by any such Board or society.

24. The Board may organize or assist in equipping and paying the expenses of any expedition to any part of New Zealand or to any island in the Pacific Ocean for the investigation and the collection of records regarding any matter or thing which comes within the objects or purposes defined by the said section.

# PAN-PACIFIC SCIENTIFIC CONGRESS.

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MEETING IN AUSTRALIA,  
AUGUST-SEPTEMBER, 1923.

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THE Polynesian Society was represented by the following delegates:—Dr. P. H. Buck and Mr. H. D. Skinner.

The Melbourne session opened on August 13th. The officers of Section II., Anthropology and Ethnology were: President, Dr. A. C. Haddon, F.R.S.; Hon. Secretary, Mr. E. L. Piesse, B.Sc., LL.B.

The following papers were read before the section:—

Dr. A. Lodewyckx, "Linguistic problems in the Pacific." The speaker described modern methods of recording the phonetics of a language by means of specially designed phonographs, and referred to several European institutions which have carried out such research and have large numbers of permanent phonographic records.

Dr. D. Macdonald, "The Polynesian word for God, Atua, and its anthropological significance." The speaker held that the word was closely allied to words of similar meaning in the Semitic languages.

Dr. van H. Labberton, "Preliminary results of research into the Relationship between the Japanese and the Polynesian Language." The speaker stated that such evidence as he had thus far examined supported the view that Japanese belongs to the Austronesian family of languages.

Prof. Sir Edgeworth David, "The geological age of the Aboriginal chalcedony flake found at the Old Doone Mine, near Gladstone, in N. E. Tasmania." The deposit in which this dressed flake was found was stated to be of Glacial age. On this basis Sir Edgeworth David reached the conclusion that the Tasmanian race had reached Tasmania some twenty-thousand years ago.

Captain G. H. Pitt-Rivers, "Variations in sex ratios in relation to racial decline." The relative number of women declines strongly in populations which are declining in absolute number. Other variations were discussed.

An afternoon was devoted to the inspection of the Australian section of the Ethnographic Department of the National Museum, Sir Baldwin Spencer acting as guide. The collection is especially rich in material from Central and Northern Australia, and in stone implements. The classification of the latter was explained by Mr. A. S. Kenyon who, with Mr. D. J. Mahoney, is mainly responsible for the collection of specimens numbering about 30,000, and for the selection of the exhibition series.

A day was spent on aboriginal camp sites on wind-eroded inland sandhills north-west of Geelong. These sites, which provided an interesting contrast with those of New Zealand, yielded a rich harvest of artifacts, especially pygmy implements remarkable for delicacy of flaking.

The Melbourne session closed on August 21st.

The Sydney session opened on August 23rd, Dr. Haddon being chairman, and Drs. S. A. Smith and J. I. Hunter, joint-secretaries.

The following papers were read:—

Mr. W. J. Perry, "The origin of the Aboriginal social system." It was contended that decisive evidence existed of foreign influence which could be traced ultimately to Egypt.

Prof. Griffith Taylor, "Zoning of Australian physical and cultural features." Dr. Taylor's conclusions were criticised by Mr. Perry.

Dr. A. E. Burkitt, "Dentition and palate-structure of the Australian Aboriginal."

Dr. A. H. Tebbutt, "Blood relationships of the Australian Aboriginal." Dr. Tebbutt dealt with recent research in blood types, which were shown to be Mendelian, and indicated that in this feature the Aborigines were to be grouped with Europeans and contrasted with the Negroid races.

Prof. Flynn, "The fauna of Tasmania." All faunal evidence indicates that Tasmania has been united with Victoria until very recent times.

Mr. L. L. Waterhouse, "The chalcedony scraper found at the Old Doone Mine, Tasmania." This was a detailed account of the implement which Sir Edgeworth David had exhibited and briefly described at Melbourne, and to which he had ascribed an age of 20,000 years. In the discussion which followed it was pointed out that the implement, though found beneath twenty feet of gravel, showed no sign of rolling.

Mr. A. S. Kenyon, "The relation of Tasmanian stone implements to those found in Victoria." Mr. Kenyon stated that Tasmanian types are found in the most recent camp-sites in Victoria. Dr. Pilleine described Tasmanian sites which he had investigated.

Prof. Macmillan Brown, "Easter Island and its culture." Interesting cultural features were mentioned which will be fully described in Dr. Brown's forthcoming book.

T. H. Ray, "The past, present, and future study of the languages of the Pacific Islanders." In Papua two linguistic groups were found—one with Melanesian affinities, the other consisting of several distinct types of language, with no relation to one another, or to any other known form of speech in the Pacific. The latter group was termed Papuan. That term did not imply any community between the languages so named, but served only as a convenient expression to indicate their non-Melanesian character. The same distinction prevailed in mandated New Guinea, but in Dutch New Guinea the distinction was between Papuan and Indonesian. In Melanesia very little progress had been made in the classification of languages, but he found that they fell into several well-marked divisions, corresponding to geographical areas. Indonesian and Melanesian elements entered into the languages of Micronesia. He found that the Polynesian languages formed at least four groups, of which Tahitian, Samoan, Tongan and Maori respectively may be regarded as typical. Tahitian, and especially Tuamotuan, showed Indonesian elements in their minimum, whilst they were at their maximum in Tongan. The old theory of a Malayo-Polynesian relationship had never been disproved. The most notable denials of that theory were those of James Fraser and William Churchill, but the former's so-called evidence would not be accepted by any competent philologist. ["Herald" report.]

Mr. H. D. Skinner, "The oldest culture in southern New Zealand."

Dr. P. H. Buck, "Maori technology." Kinema films were shown illustrating Maori plaits and basketry.

Prof. Griffith Taylor, "Geographic principles governing early migrations—Corridors, Shatter-belts, Transgressions, Outliers."

Mr. W. J. Perry, "Influence of Egypt in Polynesian social organisation."

Dr. A. C. Haddon, "The Races of Man."



An afternoon was spent under the guidance of Mr. W. W. Thorpe in inspecting the ethnographic collections of the Australian Museum. The department is extraordinarily rich in material from New Guinea and Melanesia. Excursions were made to camp-sites and rock-drawings in the neighbourhood of Sydney.

A conference of members interested in Physical Anthropology was held in the rooms of Professor Hunter, at which the adoption of uniform measurements and a uniform terminology was discussed and a scheme adopted. It is hoped that investigators of Physical Anthropology in the Pacific will in future use the cards drawn up on the basis of this discussion.

The following recommendations made by the Anthropology Section were passed as resolutions by general session of the Pan-Pacific Congress :—

### ANTHROPOLOGY AND ETHNOLOGY.

Nos. 1 and 2 recommended by the Section for presentation to the Commonwealth Government.

(1) **TEACHING OF ANTHROPOLOGY.**—The preservation, progress, and welfare of the native population of Oceania, which is a charge under the terms of the Mandates granted to the Commonwealth of Australia and the Dominion of New Zealand, can best be carried out by a policy based on the investigation of native conditions, customs, laws, religion, and the like, which is a study not merely of academic interest and importance, but points the way to a sympathetic method of dealing with and governing such peoples. The economic development of these countries generally depends upon the adoption of an intelligent native labour policy of recruiting, treatment, protection, and so forth, which can be built up only on a wide and sympathetic knowledge of native life and thought; this knowledge can best be gained only by intensive investigations by trained students. His Excellency Judge J. H. P. Murray has repeatedly drawn attention to these matters and has given effect to his opinion by appointing special officers in Papua for this purpose. There is even greater need of such action in the Mandate Territory of New Guinea, in many of the islands of which, according to the most recent report published by the Commonwealth Government, the natives are rapidly dying out.

The Congress therefore urges that provision be made for the teaching of Anthropology in the Universities of Australia.

The duties of the instructor should be :—

1. A. To teach Anthropology. (a) In co-ordination with geographical, historical, psychological, anatomical and other departments; (b) as a training for Government officials, missionaries and others who will be brought into personal contact with natives; (c) as a training for investigators in the field, who may or may not be attached to some local Government.

B. Himself to undertake and direct field research.

2. The stipends attached to such posts should be of the same amount as those of analogous positions in other Departments.

3. Travelling allowances must be provided for work in the field.

4. Grants would have to be made for the equipment and maintenance of a laboratory and departmental library.

(2) **STUDY OF AUSTRALIAN ABORIGINES.**—In view of the great and peculiar interest of the Australian aborigines as representing one of the lowest types of culture available for study, of the rapid and inevitable diminution in their numbers, and of the loss of their primitive beliefs and customs when under the influence of a higher culture, the Pan-Pacific Congress urges that steps should be taken, without delay, to organise the study of those tribes that are, as yet, comparatively uninfluenced by contact with civilisation.

(3) **NEED FOR RESEARCH IN AUSTRALIA AND OCEANIA.**—Recognising the necessity for the immediate prosecution of anthropological research in Australia and Oceania, this Congress calls the attention of governments, universities, patrons of research, and research foundations to the pressing and important need for this investigation.

This study is urgently needed for the following reasons:—

(i.) The undoubted disappearance of the native population in many areas, which not only seriously affects the labour problem, but involves the loss of most valuable scientific material, and in the Territories held under Mandate, is itself the most serious obstacle to the duty accepted by the Mandatory Powers of promoting the material and moral well-being and social progress of the inhabitants.

(ii.) The practical importance of the ethnological study of native races has been recognised by His Excellency Judge J. H. P. Murray by the appointment of two officers in Papua especially for this purpose. Experience has shown the economic value of placing the control of labour in the hands of a man who has a sympathetic knowledge of native conditions and thought in eliminating disputes and inducing a contented frame of mind in the workers. Expert advice on native matters has proved of inestimable value to Governments, for instance in New Zealand and in Africa.

It is therefore urged that Governments responsible for the welfare of Oceanic peoples should recognise that ethnology has a practical value in administration and is of definite economic importance, and that they should proceed without unavoidable delay to take such steps as are necessary for these purposes.

(4) **FACILITIES FOR INSTRUCTION AND RESEARCH IN ANTHROPOLOGY.**—This Congress endorses the remarks and recommendations of the previous Congress on these matters.

(5) **OBJECTS OF RESEARCH.**—

(i.) The study of racial mixture is of great importance from a sociological point of view, but it is first necessary that the physical anthropology and psychology of the component races should be adequately investigated. An agreement as to procedure and standardised methods should be adopted without delay as without these, comparisons of results by various workers are impossible.

(ii.) The intensive study of limited areas, comprising all branches of anthropology, including linguistics.

(iii.) The collection, translation, and publication of information already on record.

(iv.) One object of these and similar enquiries is to elucidate the history of Oceania, which can be accomplished by a comparative study of traditional lore, languages, beliefs and practices, and physical characters.

(v.) It is essential that anthropologists should seek the co-operation of geologists, botanists and zoologists since the solution of the problems of the distribution of men is largely dependent upon their aid.

(vi.) The ethnographic survey of Oceania is faced with the problem of determining which parts of the region deserve priority of treatment.

For historical reasons the area that first needs study is Micronesia, since the culture and ruins of this group are of such a nature that, adequately dealt with, they should furnish the clue to much that is obscure in Oceanic mythology, folk-lore, and culture generally. While Micronesia is an area of outstanding importance, other parts of Oceania should receive early attention, among them being Southern Melanesia, including New Caledonia; New Guinea; Tahiti and neighbourhood, especially Raiatea; and Manu'a of Samoa.

(6) **AREAS OF RESEARCH.**—The Congress is generally agreed that it is desirable for practical purposes that the investigation of various areas in Oceania should be undertaken as a whole by definite bodies.

The Pacific region may be divided into four main areas—(i.) Australia, (ii.) New Guinea and Melanesia, (iii.) Polynesia, (iv.) Micronesia.

It is suggested—(i.) That Australian ethnology be the special concern of Australia. (ii.) That Australia should more particularly investigate Papua, the Mandated Territory of New Guinea, and Melanesia, but Great Britain and France should assist in this work. (iii.) That the investigation of the Maoris be the special province of New Zealand. The rest of Polynesia may be regarded as pre-eminently the field for American research, with the co-operation of France and New Zealand. (iv.) That the study of Micronesia be the particular province of Japan and America.

Although Indonesia is not technically a part of the Pacific it has such close historical and cultural affinities with Oceania that a thorough investigation of this area is indispensable for a comprehensive knowledge of Oceanic problems. While recognising what has been done by the Netherlands Indies Government the Congress hopes that this Government may see its way to co-operate in the proposed scheme.

(7) **PRINTING OF LINGUISTIC STUDIES OF MR. S. H. RAY.** (To be sent to Federal Government and Universities of Australia and New Zealand and Honolulu.)—The Congress hopes that means can be found for ensuring the publication of the studies of Mr. Sydney H. Ray on the Oceanic languages.

(8) The following resolution was passed by the Section to be forwarded to the Parliamentary Representatives of the Maori Race:—"That the members of the Anthropological and Ethnological Section of the Pan-Pacific Science Congress receive with pleasure the greetings of their Maori colleagues and express their appreciation of the practical steps taken by the Parliamentary Representatives of the Maori Race in founding an Ethnological Research Fund. They convey to the Representatives and the Maori people they represent their greetings and best wishes for support and success in the work they have begun. They are gratified that one of the objects of the Congress is receiving such magnificent support from one of the native races of the Pacific."

(9) That the Commonwealth Government be asked to take steps to obtain complete cinematograph records of the various industries and arts of the Australian aborigines on similar lines to the admirable work being carried on by the Dominion Government of New Zealand.

H. D. S.



## NOTES AND QUERIES.

### [342] The Old Stone Age in Siberia.

In the "American Anthropologist" (XXV., p. 21), Gero von Merhart describes several sites in the Yenesei region in which the Palæolithic is represented. Judging from the illustrations, a number of Mousterian types are represented among the stone implements, but associated with them are a number of bone objects closely resembling Magdalenian forms from Western Europe. In a note B. E. Petri announces the discovery of the same types of implements near Irkutsk. This discovery of the Palæolithic so widely distributed in Siberia is the more unexpected since in spite of diligent search no sign of human handiwork older than the Neolithic has yet been found in any part of the whole Chinese Empire.

### [343] Kumara God in the Grey Collection.

Among the articles recently transferred to the Auckland Museum in the Grey Collection, perhaps the best-known is the small *kumara* god from the Taranaki district. In a letter to Mr. Geo. Graham, Captain Gilbert Mair gives the following note about it: "That little *atua kumara* was brought from Taranaki by some Arawa who were members of the great Onuiwhenua *ope*, under Tuwhare, Patuone, etc. I saw it dug up and presented to Sir George Grey by Pango, the famous *tohunga* of Ngati-whakaue in 1866. Matuatonga is not its proper name—I have forgotten it. Matuatehe is still hidden on Mokoia."

### [344] Pottery in the Solomon Islands.

The Rev. C. E. Fox, Litt.D., has presented to the Otago University Museum fragments of coarse red pottery found in road-making at Pamua, north coast of San Cristoval. The pottery is coarse-grained, undecorated, and of poor quality, and appears to have been made by the coil method. The art of pottery-making has long been lost on San Cristoval, but the natives know traditionally of spots where the clay was obtained. Not long ago a complete pot was dug up on Ugi, but it was broken up before it could be seen and described.

### [345] The Lizard in Maori Art and Belief.

In the "New Zealand Journal of Science and Technology," [Vol. V., No. 6 pp. 321-35] Mr. Elsdon Best gives an account of the part played by the lizard in Maori art and in Maori myth and superstition. He notes that in Maori wood-carving it is the sole animal which is treated realistically. It would be interesting to have Mr. Best's comments on it as rendered in bone or as painted on the flat. The ancient bone-flute in the British Museum on which a lizard is etched realistically is figured but is not mentioned in the text, while the lizard realistically carved in the round in bone, which comes from the East Coast of the North Island and is now in the Dominion Museum, is neither figured nor described. This object, which is pierced for suspension as a pendant, is presumably an amulet. Among the numerous rock-paintings in South Canterbury there was a very



realistic lizard rendered in black. This interesting and important piece was cut from the rock by a visitor, and is now, if it has survived at all, in private hands in America. Mr. Best discusses at length the part played by the lizard in Maori belief, and suggests that the horror with which it was regarded is a legacy from ancient times in Indonesia, when the crocodile made the crossing of streams and rivers a matter of danger. Though the lizard tribe as a whole were regarded with fear and aversion, the *tuatara*, largest and most fearsome-looking of New Zealand reptiles, was collected and eaten with avidity.

H. D. SKINNER.

[See "Journal Polynesian Society," Vol. XIX., p. 225, Notes 216 and 217 re the lizard in Maori carving.—EDITOR.]

### 346] Australian Culture Elements in the New Hebrides.

At the Sydney session of the Pan-Pacific Congress it was suggested by Mr. A. R. Kenyon that the cylindro-cornuate implements of the Australian aboriginals described by Etheridge in *Memoirs of the Geological Survey of New South Wales*, might possibly be related to the cylindrical "death stones" of Tanna. He pointed out, however, that the inland distribution of the Australian implements was against such a hypothesis.

### 347] Movements of Anthropologists.

The Rev. C. E. Fox, M.A., Litt.D., has been on leave in New Zealand. He delivered lectures at Otago University and also to the Archæological section of the Otago Institute. Dr. Fox presented to the Otago University Museum a large amount of ethnographic material from San Cristoval, including a rough stone statue, with "goatee" beard, of the Easter Island wooden-figure type, and he hopes to send to the same institution a small holed dolmen with skulls. Dr. Fox brought with him Monongai, of Heuru, from whose dictation a great amount of information relating to San Cristoval material culture was taken down.

Dr. Spencer Trotter, who is conducting courses in Anthropology at Swarthmore College, has left part of his work in charge of Dr. Frank G. Speck of the University of Pennsylvania, and is leaving for a trip of reconnaissance in the South Pacific.—*American Anthropologist*.

Reports from Commander J. C. Thompson and Hans G. Hornbostel, representing the Bishop Museum, indicate successful outcome of the explorations in Guam and the southern Marianne Islands. Much information has been obtained about the culture of the vanished Chamorros, a flourishing race at the time of Magellan's visit in 1521. Under the direction of M. F. Malcolm, assisted by the Governor of Saipan, the remarkable ruins on the Japanese Island of Tinian, visited by Anson (1749), Mortimer (1791) and Freycinet (1817), are being studied with a view to enlarging the knowledge of migration routes and inter-relations of Pacific peoples.—*Science*, quoted in *American Anthropologist*.

Dr. Forest B. H. Brown, Botanist of the Bishop Museum at Honolulu, and Mr. Elizabeth Brown, Research Associate in Botany, have returned from two years spent in the Marquesas Islands as members of the Bayard Dominick Expedition, bringing with them much new information bearing on the migrations of the Marquesans and other branches of the Polynesian race derived from a study of their food, ceremonial, and medicinal plants.—*Science*, quoted in *American Anthropologist*.

W. E. Armstrong, M.A., has returned to Cambridge from New Guinea, where he investigated the ethnology of the Massim District. During his stay there he held the post of Assistant Government Anthropologist to the Government



of Papua. He is at present Lecturer under the Board of Anthropological Studies in the University of Cambridge.

T. Barnard has just returned to England from ethnological field-work in the northern New Hebrides.

C. B. Humphries, M.Sc., has prepared for publication his report on the ethnology of Tanna, Annaiteum, Futuna, and Aniwa, and is returning on a second expedition to the southern New Hebrides.

E. W. P. Chinnery is continuing his ethnological studies in New Guinea.

A. R. Brown, M.A., formerly in Tonga, is now Professor of Social Anthropology in the University of Cape Town, where he has been joined by A. J. H. Godwin, B.A., as assistant.


A. R. McCulloch, of the Australian Museum staff, recently returned from an expedition to Lake Murray, Papua, and is now leaving for field-work in zoology and ethnology in the islands of the Gulf of Carpentaria.

## AUCKLAND INSTITUTE.

### ANTHROPOLOGY AND MAORI RACE SECTION.

WE are pleased to note that the above Section of the Auckland Institute has opened its 1923 Session under favourable conditions, and would commend its activities to other Scientific Societies in New Zealand with the hope that some may follow in their lead. The syllabus for 1923 covers six lectures, and the following subjects will be dealt with. "Folk Music as an Ethnological Study," "Maori Place Names," "Migrant Maori Place Names," "Burial Customs of the Maori," "Primitive Medicine," "Physical Types of the Maori Race."

The President of the Section for 1923 is Professor J. C. Johnson, and Mr. J. H. Hudson, Secretary. Last year these positions were filled by Dr. P. H. Buck, D.S.O., and Mr. Geo. Graham respectively.



## PROCEEDINGS.

### POLYNESIAN SOCIETY.

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MINUTES of a meeting of the Council held in the Library on Thursday, 4th October, 1923, at 4 p.m. Present: Messrs. Skinner (in the chair), Rockel, White and Waterson.

Minutes of last meeting were read and confirmed.

The following new members were proposed and elected :—

Mr. K. H. Hakopa, Moawhango, via Taihape. Nominated by James Cowan.

Mr. Wm. Fraser, c/o Whangarei Harbour Board. Nominated by Andrew Wilson.

Mr. Hy. Taiporutu Mitchell, Surveyor, Roturoa. Nominated by Hon. A. T. Ngata, M.P.

Mr. Henare W. Uru, M.P., Parliamentary Buildings, Wellington. Nominated by Hon. A. T. Ngata, M.P.

Mr. Robert Noble Jones, Chief Judge Native Land Court, Wellington. Nominated by Hon. A. T. Ngata, M.P.

Mr. J. Heenan, Law Draughtsman's Office, Wellington. Nominated by Elsdon Best.

Mr. J. Fraser Paterson, c/o G.P.O., Auckland. Nominated by C. Waterson.

Rev. J. G. T. Castle, M.A., Heretaunga School, Havelock North. Nominated by Archdeacon H. W. Williams.

Mr. D. van Hinloopen Labberton, Prof. of Netherlands Languages, Gai Koku, Go Gakko, Tokyo, Japan. Nominated by H. D. Skinner.

Miss Vida M. Barron, 44, Queen Street, Dunedin. Nominated by H. D. Skinner.

The Hon. Treasurer (Mr. White) reported that the first instalment (£50) of the grant of £100 made by the Department of Native Affairs towards the funds of the Polynesian Society, had been received.

A considerable amount of correspondence was dealt with. Among the letters received was one from the Hon. A. T. Ngata, M.P., suggesting that for the easier working of the Society in conjunction with the newly formed Board controlling the Maori Ethnological Research Fund, "the head-quarters of the Polynesian Society be transferred to Wellington. After a full discussion the following resolution, moved by Mr. Skinner and seconded by Mr. Rockel, was carried: "That it be a recommendation to the Annual Meeting of the Society, to be held on or about the 15th January next, that the head-quarters be transferred from New Plymouth to Wellington, providing satisfactory arrangements can there be made for carrying on the work of the Society, and more particularly that part dealing with the publication of the Polynesian Journal and the Memoirs issued under the authority of the Society."

Following on the above resolution, a Memorandum and Notice of Motion was handed to the Secretary, reading as follows: That in view of the establishment of the "Maori Ethnological Research Fund," with Board of Management in Wellington, and in consideration that the aims of the new body are practically identical with those of the Polynesian Society, and consequently it would be to the advantage of both parties to be near each other for consultative purposes, it is desirable for the advancement of Ethnological work in Polynesia that the headquarters of the Polynesian Society be transferred to Wellington, as soon as satisfactory arrangements can be made for such transfer.

I beg therefore to give notice at this meeting of the Council held on Thursday, October 4th, 1923, in terms of Rules 7 and 13 of the "Rules of the Polynesian Society," that I will move at the Annual Meeting of the Society to be held in New Plymouth on or about the 24th January, 1924, the following resolution:—

"That provided satisfactory arrangements can be made for the continuance of the Society, and the editing of its Journal in Wellington, the head-quarters be transferred to that city as soon as convenient after such arrangements have been completed."

W. H. SKINNER,  
A member of the Polynesian Society,  
and Chairman of its Council.

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# MAORI SOMATOLOGY.

## RACIAL AVERAGES.

BY TE RANGI HIROA (P. H. BUCK) D.S.O., M.D.

V. (Continued from Vol. XXXII., No. 1.)

### SUMMARY.

Having concluded the measurements taken, the following table groups the averages of the various absolute measurements.

TABLE XXXIII.—AVERAGES OF ABSOLUTE MEASUREMENTS.

Measurements.	No. of Cases.	Average.
Weight ..	384	163·9 lbs.
Height ..	424	1706 mm. or 67·3 in.
Sitting Height ..	420	920 mm. or 36·2 in.
Sitting Height Index ..	420	53·8
Maximum Head Length ..	421	196·5 mm.
Maximum Head Breadth ..	421	152·8 mm.
Cephalic Index ..	421	77·7
Vertical Radius ..	417	136·3 mm.
Vertical Index ..	415	69·3
Face Height ..	422	124·0 mm.
Face Width ..	424	145·7 mm.
Facial Index ..	422	85·1
Cephalo-facial Index ..	422	95·3
Nose Height ..	424	52·8 mm.
Nose Width ..	424	40·1 mm.
Nasal Index ..	424	75·9
Chest, ant-posterior Diameter	415	198·0 mm. or 7·8 in.
Chest, Lateral Diameter ..	415	279·0 mm. or 11·0 in.
Chest, Circumference ..	415	894·0 mm. or 35·2 in.
Upper Arm Length ..	415	315·0 mm. or 12·4 in.
Upper Arm Circumference ..	415	292·0 mm. or 11·5 in.
Forearm Length ..	417	254·0 mm. or 10·0 in.
Thigh Length ..	418	414·0 mm. or 16·3 in.
Thigh Circumference ..	419	536·0 mm. or 21·1 in.
Leg Length ..	418	363·0 mm. or 14·3 in.
Calf Circumference ..	418	379·0 mm. or 14·9 in.

Averages, whilst for comparative purposes, useful in assisting us to visualise a race or a number of persons as concentrated into one individual, do not in themselves convey any idea of the various types that may go to the formation of those averages. In the above table it will be seen that the average indices such as cephalic, nasal, etc., occupy a medium position. This argues a fair amount of racial intermixture. Of the 421 individual cephalic indices that form the medium or mesaticephalic average index of 77.7, it has been shown in Table XII. that 63.4 per cent. belong to that class. The rest, however, are made up of 14.9 per cent. long-headed and 21.6 per cent. broad-headed. From this it will be seen that amongst the living (in this series) there is a higher percentage of broad heads than long heads. This is contrary to what has been accepted in the past. Previous data however has been supplied by the work of Scott, Turner and Flower, which was done on skulls. For comparative purposes, I have converted this series to similar terms by adding Broca's two units of difference in cephalic index by raising the upper limit of the long heads to 76.9 and the lower limit of the broad heads to 82.

TABLE XXXIV.—CRANIAL INDEX IN GROUPS (Converted).

	No. of Cases.	Percentage.
Dolichocephalic (to 76.9)	165	39.1
Mesaticephalic (77 to 81.9)	216	51.3
Brachycephalic (82 and upwards)	40	9.2
Total	<u>421</u>	

Comparing the above table with Table XII., it will be seen that in the living, the broad heads exceed the long heads by 21.6 per cent. to 14.9 per cent., but for the *crania* of the same series the position is considerably reversed. The long heads now exceed the broad heads by 39.1 per cent. to 9.2 per cent. These anomalies should be removed by our authorities on physical anthropology. If Broca's two units of difference between the cephalic and cranial indices is accepted, why should we continue to use the same figures to mark the boundaries between the long, medium and broad classes of heads and skulls? Much confusion and extra work will be saved by altering the figures of either the one or the other. As Professor Roland Dixon<sup>1</sup> has thrown new light on Maori physical types from data based on the measurements of Maori crania, I will adhere to the classification adopted in the above table whilst comparing with Dixon's results.

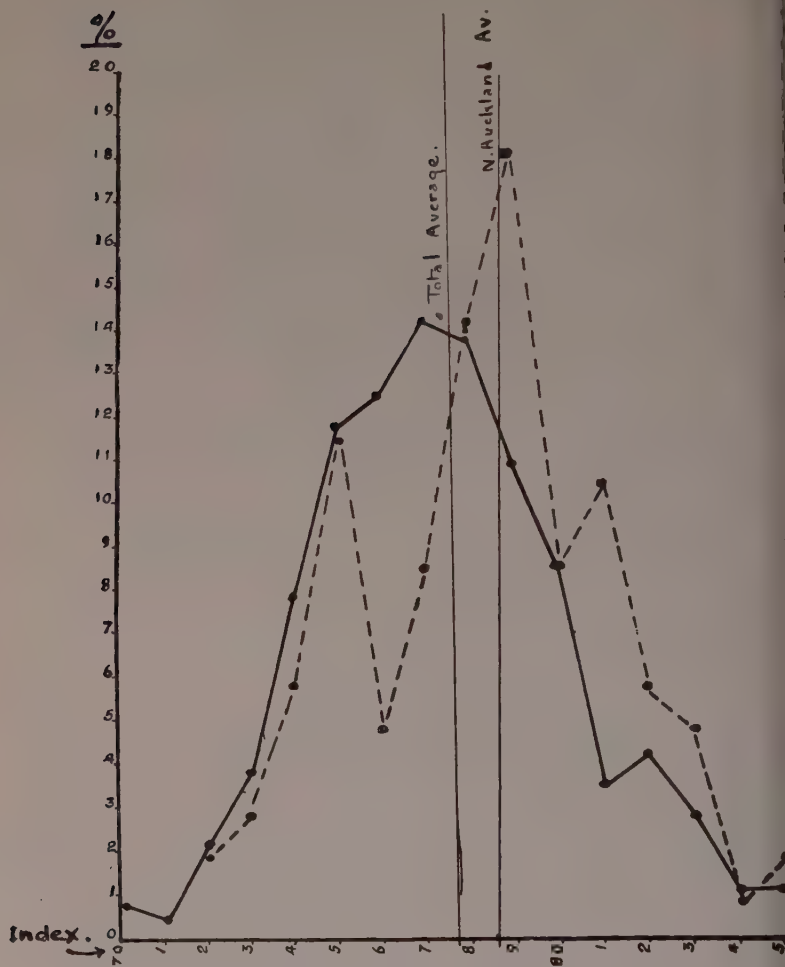




# DISTRIBUTION OF CEPHALIC INDEX.

Plain line = Total Series.

Broken line = North Auckland Series.



Average, Total Series = 77.7.

Average, North Auckland = 78.6.

FIGURE 1.

In Figure I. the plain line shows a frequency curve for the cephalic index of the whole series. It will be noticed that the mode almost coincides with the mean of 77·7, and the curve is practically normal. This would convey the impression that the series is homogeneous. Such, however, is far from the case. In the Figure, the dotted line shows the frequency curve for the Ngapuhi Tribes of the North Auckland Peninsula. This series of 105 should be far more homogeneous than the 421 of the total series, who are derived from 19 different tribes from all parts of New Zealand. The various tribes with different averages and different percentages of long and broad heads have somehow fitted in to make an apparently normal frequency curve. In the Ngapuhi series, however, the different elements come out in the curve. The mean is at 78·6 but the mode or greatest frequency practically coincides at 79. Secondary modes appear at 75 and 81, showing the influence exerted by long-headed and broad-headed elements in the series.

The distribution of long heads and broad heads amongst the North Island tribes varies considerably. My results do not agree with those of Dr. Scott,<sup>2</sup> who himself recognised that his data was too scanty to establish the various tribal differences that he believed to exist. Though I have sufficient data for four tribes, it is advisable to deal separately with tribal differences when the other main tribes have been worked up to series of at least 50 subjects. The following table, however, will give some indication of the distribution of head form. The cephalic index is reduced to cranial index and the percentages indicate the percentage within the tribe itself and not in relation to the whole series.

TABLE XXXV.—TRIBAL DISTRIBUTION OF HEAD FORM (Converted).

Tribe.	District.	No.	Dolicho- cephalic (to 76·9)	Brachy- cephalic (82 and upwards).
			per cent.	per cent.
Ngapuhi	.. N. Auckland Pen.	105	26·4	13·2
Te Arawa	.. Hot Lakes	65	42·2	10·7
Waikato Tribes	.. Bay of Plenty	33	48·4	6·0
Ngati Porou	.. East Coast	52	48·0	7·7
Ngati Kahungunu	Hawkes Bay	68	50·0	1·5
Te Aitanga-a-Māhaki Tribes	.. West Coast	33	39·3	6·0
Whanganui	.. Whanganui River	31	29·0	16·1
Average for series		.. 421	39·1	9·2
		==	==	==

In spite of the fact that the nose of a new born infant was measured, the Nasal index still remains a useful criteria in disentangling racial types. It is a question as to how far spasmodic

rubbing without a fixed mechanical appliance would influence the natural growth, development and ultimate shape of the nasal organ. It is generally held that massage by itself has no effect on the ultimate shape of the head. Best<sup>3</sup> describes how the nose was pressed flat in a certain district. I myself was told the same thing of the same district, when my Maori informant quoted it as an exception to the rule amongst his own tribe of narrowing the nose in the manner I have already described. Although nose flattening has been recorded for various parts of Polynesia, it appears that in New Zealand, massaging the nose to raise the bridge (theoretically) and narrow the nostrils was the usual thing and flattening was the exception. Whatever effect either method had on the fleshy part of the nose—and I believe that that effect was nil except for the aesthetic pleasure that it gave the mother—it could have no effect whatever on the shape of the nasal aperture of the skull and the situation of the naso-frontal suture. Scott's<sup>2</sup> percentages of 43·9 per cent. leptorhine, 45·5 per cent. mesorhine and 10·6 per cent. platyrhine for Maori crania can therefore have no objections raised against them by believers in the maximum effects of massage. My series gives the same percentage of 10·6 for broad noses, so that evidently massage was unable to convert mesorhines into platyrhines. I have lost, however, in the narrow noses for I can only muster 17·9 per cent. for my series as against Scott's 43·9 per cent. If the correlation between the nasal indices for the cranium and the head is correct, this difference will probably be regarded by some ethnologists as proof of the effect of massage in flattening the living nose. It is curious that massage should have changed 26 per cent. of leptorhines into mesorhines and not have converted a single mesorhine into a platyrhine. In any case the two sets are not exactly comparable as Scott's crania included both sexes. I would again stress the point that unless a mechanical appliance is kept constantly in position for a considerable time, massage either to flatten or narrow is useful only to indicate the type of nose desired. Need it always be that of the conqueror or the latest comer? Why should not a conquered people yearn after their own ancestral type of nose that is being altered by miscegenation? A large proportion of Jews<sup>7</sup> have maintained their ideal type of nose even when alterations in head form have revealed considerable intermarriage with the surrounding gentiles. May not the different ideals of two distinct ethnic waves, cropping up as one or other racial factor predominates in the tribe, account in New Zealand for the conflicting methods of attempting to flatten or narrow the nostrils.

CORRELATION.—Correlation of two or more physical criteria has shed considerable light on the existence of different types in a population. Professor Rowland Dixon<sup>1</sup> correlating three physical

criteria created eight fundamental 'types' for which he worked out the percentages in the cranial data available from various parts of the world. Two of these criteria are the cranial and nasal indices. I have correlated these two indices for this series. His third criteria, the vertical or length-height index does not affect his New Zealand results to any extent. I have therefore omitted it.

TABLE XXXVI.—CORRELATION BETWEEN CRANIAL AND NASAL INDICES (Converted).

	Leptorhine (below 70)	Mesorhine (70 to 85)	Platyrrhine (above 85)
Dolichocephalic (to 76.9)	27	113	25
Mesaticephalic (77 to 81.9)	38	159	20
Brachycephalic (82 and upwards)	10	29	0

From the above table, it will be seen that by taking the usual three divisions of each of the criteria, nine possible combinations are arrived at. Following the method adopted by Professor Dixon, all combinations which include a medial factor, mesaticephalic or mesorhine are treated as mixtures or blends. These occupy the middle horizontal and vertical columns in the table. Eliminating them for the time being, we are left with four fundamental "types," one at each corner of the table. Of these four types, two are long-headed and two broad-headed. In each of these pairs, one has a narrow nose and one has a broad nose. The long-headed, narrow-nosed "type" (dolichocephalic-leptorhine) shows the greatest number, with 27. The long-headed, broad-nosed "type" (dolichocephalic-platyrrhine) however, is very little behind it, with 25. Both these long-headed types as we would expect from the distribution of the cranial index, are greatly in excess of the broad-headed types. The third type in order of frequency is the broad-headed, narrow-nosed type (brachycephalic-leptorhine) with 10. The fourth corner allocated to the broad-headed, broad-nosed type (brachycephalic-platyrrhine) shows a blank.

The four corners of our table, however, account for only 62 of our entire series, whilst 359 have been merged into "blends." Professor Dixon dealt with these "blends" by resolving them back to "types." The first vertical column consists entirely of leptorhines. Of these, 38 have heads of medium cranial index, which are considered as being a "blend" of long and broad-headed "types." The 38 are therefore divided between these two narrow-nosed types. Similarly in the third vertical column, consisting entirely of platyrrhines, the 20 with medium heads are divided between the two types



above and below them. In the upper horizontal column, consisting entirely of long heads, the 113 with medium noses are divided between the long-headed, narrow-nosed, and the long-headed, broad-nosed types. So also in the lowest column, the 29 broad heads with medium noses are divided between the two broad-headed types. The 159 with medium heads and medium noses could belong to both types of head, and both types of nose, therefore to all four types. Where a type such as the brachycephalic-platyrrhine is apparently absent as in this case or has little influence, it is left out of the distribution. Whilst the procedure adopted by Dixon of giving an equal division of blends to the appropriate "types" results in an approximate indication of the percentage of types, it seems capable of improvement in a small series such as this. Where the long-headed factors predominate so much over the broad-headed, it seemed to me that they should have a greater percentage of the medium-headed leptorhines and platyrrhines than the broad-headed types. Thus the dolichocephalic-platyrrhines which number 25 should have more of the 20 mesaticephalic-platyrrhines than the brachycephalic-platyrrhines which number 0. At the same time the latter, though apparently non-existent as a definite type, should not be entirely disregarded. There are several brachycephalics with a nasal index very little below 85, and there are also platyrrhines which just fail to reach the brachycephalic index. I therefore distributed the "blends" amongst the "types" by setting up a dividing index midway in the mesaticephalic and mesorrhine groups. For mesaticephalic blends, all up to 79.4 were treated as dolichocephalic, and all above that as brachycephalic. For the mesorrhine blends, those up to 77.5 were treated as leptorrhine, and those above as platyrrhine. The 359 "blends" were distributed amongst the four types according to this method and the results are tabulated below:—

TABLE XXXVII.—PERCENTAGE OF FUNDAMENTAL TYPES  
(Converted).

Type	No. of Pure Types.	No. from Blends.	Total No.	Per cent.
Dolichocephalic-leptorrhine	27	175	202	48.0
Dolichocephalic-platyrrhine	25	81	106	25.1
Brachycephalic-leptorrhine	10	63	73	17.3
Brachycephalic-platyrrhine	0	40	40	9.6
	<hr/> 62	<hr/> 359	<hr/> 421	
	<hr/> =	<hr/> ==	<hr/> ==	

The two long-headed types form 73.1 per cent. of the entire series. This preponderance is to be expected when the average cephalic index for the series is 77.7 or reduced to the cranial index with which w

are working, 75·7. Of the two types, however, which were almost equal in the first distribution, the dolichocephalic-leptorhine receives over twice as many accessions from the "blends," namely 175 to 81. That the majority of long-headed mesorhines should go to the long-headed, narrow-nosed type is again to be expected, when it is noted that the average nasal index of the series is 75·9 and thus nearer to the leptorhine group than the platyrhine. It is unexpected, however, that the majority should be so marked. The long-headed, narrow-nosed type with 48 per cent. is thus easily the most predominant type in the Maori population of the North Island. The long-headed, broad-nosed type maintains its position in second place, but where on the first count it was on almost equal terms for first place, it has now fallen well back with 25·1 per cent. Of the broad-headed types, the narrow-nosed type received an accession of 63, giving it a percentage of 17·3 and thus making it a definite factor not so very far behind the dolichocephalic-platyrhides. The broad-headed, broad-nosed type, which at first had apparently no representatives, received 40 from the "blends," and is present to the extent of 9·5 per cent.

Reverting back to the first count of types in Table XXXVI., the table below shows the averages for four additional criteria for the three main types, without the addition of the blends.

TABLE XXXVIII.—AVERAGES OF ADDITIONAL CRITERIA.

Criteria.	Dolichocephalic-leptorhine.	Dolichocephalic-platyrhine.	Brachycephalic-leptorhine.	Average of Series.
Height (Inches)	67·1	67·4	67·9	67·3
Sitting-height index	54·1	53·6	53·7	53·8
Facial index	88·5	81·8	86·1	85·1
Cephalo-facial index	96·7	97·3	93·1	95·3

The average height in the three types is practically the same, though one would have expected to see some more marked difference. In the sitting height index, the dolichocephalic-leptorhines are above the average for the series, which needs explanation if it is supported by further data. In the cephalo-facial index, the brachycephalic-leptorhines show the lowest average, which is to be expected in a broad-headed type. The two long-headed types are both above the average for the entire series and of the two, the broad-nosed by its slightly higher index shows a tendency towards a narrower skull in proportion to its face width than does the narrow-nosed type. In the facial index, there is a very significant difference between the two long-headed types. The narrow-nosed one is 3·4 above the average for the entire series whilst the broad-nosed one is 3·3 below it, making an actual difference between them of 6·7. Thus the long-headed,

broad-nosed type has a distinctly shorter face in proportion to its breadth than the long-headed, narrow-nosed type.

These types are purely laboratory types deduced from a consideration of mathematical figures. Professor Dixon<sup>4</sup> found all four types in the cranial material for Polynesia. In combination with the vertical or altitudinal index, he considered them as arbitrary units to which he applied names. The long-headed, narrow-nosed type he found predominant in New Zealand. This type he associates with the Causasian factor that various writers have stated to be present amongst the Polynesians. In his more recent work<sup>1</sup> he distinguishes the one with a high head as Caspian, and the one with a low head as Mediterranean, but remarks that they are found associated together. It is the former that he finds predominant in the North Island of New Zealand. The long-headed, broad-nosed type, when associated with a high head, he terms Proto-Negroid, and with a low head, Proto-Australoid. A mixture of the two, he associates with Melanesians and finds occupying second place in the North Island. The broad-headed, narrow-nosed type, he termed Alpine, and placed in the third place in the North Island and in the first place in the South Island and the Chatham Islands. Our data, reduced to the same terms of *cranial* index and with the "blends" distributed amongst the "types," corroborates Dixon's views for the North Island as a whole, but do not agree with his division of the North Island into two areas, the North Auckland Peninsula and the rest of the North Island. (See Table XXXV.) The broad-headed, broad-nosed type with high heads which he found predominant in the northern Islands of the Sandwich Group, he found existing as a mere trace in other parts. This type he first termed as Negritto,<sup>4</sup> but from the consideration of further data, he changed the term to Palae-Alpine.<sup>1</sup> In our data, though there were no pure examples of this type, the distribution of the "blends" shows that as an arbitrary unit it exists in the Maori population to a greater extent than would have been expected.

Dr. Sullivan,<sup>5</sup> from the more extensive and detailed Polynesian living material rendered available by the Bayard Dominick Expedition, regards the Polynesian population as consisting of at least two basic elements. One with tall stature, moderately long heads, relatively high narrow faces and relatively high narrow noses, he considers as the Polynesian proper. This he considers probably agrees with Dixon's Caucasian type (subsequently Caspian). It would also agree with the dolicho-leptorhine element, with a relatively high face which in Table XXXVII. formed the predominant element in our Maori series. The other element with shorter stature, shorter heads, low broad faces, and low broad noses, he terms Indonesian. Though

to many, the term Indonesian has usually been associated with long-headed races living in Indonesia amongst short-headed races, Sullivan's enumeration of the physical characteristics leaves no doubt as to the type he means. He says that this is probably the element that Dixon terms Negrito (and subsequently Palae-Alpine). It probably coincides with our brachycephalic-platyrrhine element, which we have found to be present in our Maori material to a small extent. If the Maori material is analysed without reducing the cephalic index for comparison with Dixon's cranial results, this second element is found to be present to an even greater extent.

TABLE XXXIX.—CORRELLATION OF CEPHALIC AND NASAL INDICES.  
(Unconverted.)

	Leptorhine (to 69·9)	Mesorhine (70-85)	Platyrrhine (above 85)
Dolichocephalic (to 74·9)	16	41	6
Mesaticephalic (75 to 79·9)	41	193	31
Brachycephalic (80 and upwards)	19	63	8

The difference of two units, as already pointed out, considerably alters the proportion of long-headed and broad-headed elements. Amongst the platyrrhines, the broad-headed element, previously apparently non-existent in a "pure" type, now exceeds the long-headed element. If the "blends" are further distributed by dividing the mesaticephalic at 77·4 and the mesorhines as before as 77·5, the difference between broad heads and long heads is still more marked.

TABLE XL.—FULL DISTRIBUTION OF ELEMENTS.  
(Unconverted.)

	Original No.	No. of Blends.	Total No.	Per cent.
Dolichocephalic-leptorhine	16	107	123	29·4
Dolichocephalic-platyrrhine	6	73	79	18·9
Brachycephalic-leptorhine	19	129	148	35·4
Brachycephalic-platyrrhine	8	60	68	16·2

This brings the broad-headed, broad-nosed type into consideration as a definite, if small element in the Maori population. My data was collected on a troop-ship before I knew of the organised work being done by members of the Bayard Dominick Expedition. Many of the general characteristics that Dr. Sullivan has used to distinguish his Indonesian element were not recorded by me. This can be rectified by subsequent observation. I have, however, no doubt in my mind



that a certain proportion of the Maori brachycephalic-platyrrhines will correspond to Sullivan's Indonesian element and that though it does not appear to nearly the same extent as amongst the Polynesian material with which he has been dealing, yet it does exist amongst the Maoris.

Sullivan<sup>5</sup> recognises a third element characterised by extremely short heads, narrow faces and narrow noses. This he was inclined to regard as a Polynesian type with artificially deformed heads and as perhaps corresponding to Dixon's Malay<sup>4</sup> and subsequently Alpine<sup>1</sup> type. It is now evidently regarded by Sullivan<sup>6</sup> as perhaps forming a distinct element which probably contributed some of the Caucasoid traits to the Polynesians. Though Table XL. brings the brachycephalic-leptorrhine element into the predominant position, a large proportion of it does not have a very short head. Taking the cephalic indices as against the converted cranial indices, a broad-headed, narrow-nosed element undoubtedly exists in the Maori data to a very important degree.

The long-headed, broad-nosed element exists in the above table to the extent of 18.9 per cent. It has fallen from second place in Table XXXVII. to third. Sullivan recognises this element in the population of Polynesia, and like Dixon calls it Melanesian.

Much vexation of spirit has been caused by changing about from skulls to heads. This could not be obviated in this article as we had to compare our results with that of two authorities working with different material. This unnecessary amount of extra work and alternate summings up will continue to exist as long as the figures dividing the cephalic and cranial indices into their three classes, remain the same. In the data supplied in this paper, the broad-headed elements predominate over the long-headed, but when converted for comparison with cranial material, the position is reversed.

In conclusion, as an interim report, we may say that four elements can be recognised amongst the Maoris. Of these four, two with narrow noses easily predominate over two with broad noses. In the living, the broad-headed, narrow-nosed element is, contrary to expectation, the most important. The second or long-headed, narrow-nosed element is so little behind the first in frequency, that the difference of two units in converting the cephalic into cranial indices, reverses their position.

The two broad-nosed elements, with long and short heads, though not nearly so prevalent in the whole population occur, nevertheless, as distinct elements in certain areas.

Marked tribal differences exist owing to the varying proportion of these elements. Their association with definite types is postponed until further details as regards general characteristics can be added.



Their association with the waves of migration of traditional history, though tempting, is also deferred until gaps in intertribal material have been supplied.

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[CONCLUDED.]

# DID POLYNESIAN VOYAGERS KNOW THE DOUBLE OUTRIGGER ?

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## NOTES ON THE MANAGEMENT OF CANOES AT SEA BY MAORI NAVIGATORS OF BYGONE CENTURIES.

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BY ELSDON BEST.

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Range of outrigger craft—The double outrigger—Allusions to double form as employed by Polynesians—Evidence as to former use of double outrigger in Maori tradition—The *mahau*—Canoes covered at sea—Water fenders—Washboards—Outriggers carried inboard in fair weather. Was Takitumu a double outrigger vessel?—Vessel of Rata a double outrigger—Carvel built canoes—Balers—Anchors—Paddles—Canoes sailed with outrigger raised—Outrigger craft of New Zealand—The Dominion Museum specimen—Double canoes—Double canoes and outriggers sail from Polynesia to New Zealand—Preparation of canoes for sea—Different forms and uses of anchors—How ocean currents were detected—Anchors of Tainui—Kupe's anchor—Steer oars—Long bow oars used—The *kaumoana*—Watchful experts warn crew as to different forms of waves—How they were met—How canoes were steered—Baling—Triangular sails—Maori *taurapa* reappears in New Guinea—Outriggers of Indonesia—The courageous Maori voyager.

THE outrigger canoe probably originated in India or Indonesia. It is said to have been used from ancient times on the coasts of India. Early European voyagers found it in use from that region eastward across the Pacific Ocean, even unto the easternmost isles of Polynesia. It was not, however, employed in the Americas, but it was used on the east coast of Africa, and in Madagascar. This latter extension of its range may possibly have been due to the same movement of peoples that carried the Polynesian numerals to Madagascar. Professor Tylor tells us that the outrigger was used in Europe in long past times.

The outrigger was used on the northern coasts of Queensland, but not elsewhere in Australia. Evidently the Queenslanders had borrowed it from the natives of Torres Straits. The double form of outrigger was the one mostly employed in Indonesia; the single form is comparatively rare in that region. The same may be said of the Philippine Group. Outrigger craft are seen sculptured on the stones of the great Boro Budor temple in Java, a place that dates from the 8th century, A.D.

The double outrigger is also used in Madagascar, on a part of the coast of East Africa, in Torres Straits, and on the north Queensland coast. Haddon states that it is used at the Nissan Islands, between Bougainville and New Ireland.

Such is the range of the double outrigger. It is not used in Polynesia or in the isles between New Guinea and Polynesia, according to writers on these subjects, notably A. C. Haddon and James Hornell. But in Haddon's "Outrigger Canoes of Torres Straits and North Queensland," we note some interesting remarks anent a former use of the double outrigger by Polynesian folk. These remarks are as follows:—"Dr. G. Brown states that the beautiful carvel built sailing canoes of the Samoan Islands had an outrigger on both sides. Friederici also says that the double outrigger no doubt occurred at the Marquesas at the time of the Mendana Expedition. L. Choris figures a canoe from Easter Island with a double outrigger. . . ."

The statement that occurs in Brown's work is as follows. In writing of Samoan canoes, he remarks—"All these canoes had outriggers, and in the case of the sailing canoes they had one on both sides." There is just a possibility that he spoke of the peculiar balance pole or platform fixed on the opposite side of the canoe to that on which the outrigger was secured, as an outrigger, but it is scarcely probable.

The following item serves to support the statement quoted above as to the use of the double outrigger at the Marquesas Group. Porter, the American voyager, who was at the Marquesas early in the 19th century, wrote as follows of the outrigger canoes of that group:—"They are managed with paddles more resembling an oar, and are, in some measure, used as such, but in a perpendicular position, the fulcrum resting on the outriggers *projecting from each side.*"

Can it be that the double form of outrigger was formerly used in Polynesia, and that it fell into disuse prior to the voyages of Wallis, Cook, and others? The following extracts from Maori traditions are given for what they may be worth. The double outrigger certainly seems to be referred to, and it is possible that further evidence may be procured from the isles of Polynesia, Samoa and the Marquesas for example.

What appears to be a mention of the double outrigger canoe occurs in a highly interesting tradition of the exodus of the ancestors of the Maori from the old homeland of the race. This tradition has been preserved by the Kahungunu folk of the eastern coast of the North Island of New Zealand. The account referred to contains interesting information concerning the management of sea-going vessels, modes of steering, and the preparations made to meet a storm. It describes various winds termed *hau matakaka*, *karahi*, *hau winiwini*, *puhau*, and *uruhuru*, and then continues:—"Should it be known that a gale was

approaching then immediately the vessel was prepared to meet it. The *tokotu* and *whiti* were set up, the covering mats were drawn over and stretched taut, so that, when the storm broke, all would be well. Then the outriggers of the vessel were thrust out, the *hokai* and *huapae* were secured, the water fenders were drawn into place, and the *pare arai wai* secured in place. The sail (*ra tunaki*) was folded up and the smaller sail replaced it. Experts manipulated the steer oars at the stern; two others forward wielded the *hoe whakaara* that kept the bow lifted. The vessel was now ready and fit to sail the stormy sea."

Now in explanation of the above it may be said that the *tokotu* were upright stanchions attached to the sides of the canoe; the *whiti* or *whiti-tu* were rods of a pliant nature that were secured at either end to the upper parts of the *tokotu*, so as to form an arched support for the *mahau* or awning that sheltered the occupants of the vessel during bad weather. Over this framework was spread the *huripoki* consisting of plaited mats; these were drawn taut and lashed down at the sides of the vessel. Then comes the sentence so pregnant with meaning:—"Katahi ka kokiri i nga korewa o te waka ki waho." ("Then were launched out the outriggers of the vessel.") Observe the plural form. The *hokai* are the booms that connect the outrigger float with the canoe, and the *huapae* are the fore and aft beams that connect and brace the booms. Another account seems to show that the float of an outrigger may have two names, *korere* and *korewa*. Quite possibly, however, the former term was applied to the whole fabric, including the booms and longitudinal braces.

The next performance was to rig or attach certain contrivances to fend off the water that splashed over the sides of the canoe, contrivances termed the *taupa karekare wai* and the *pare arai wai* (in full *wai parati*, or *wai turuturu*). The latter seem to denote the diversion of leaking, dripping or splashing waters, and the former the fending off of direct wave action. These contrivances are not minutely described, and hence I am not clear as to what they were or how they were fixed. A native informant explains that the *taupa* was a wash-board of a temporary nature that was so secured to the sides of the vessel as to lean outwards, or be almost horizontal. It was secured outside the vertical *tokotu* and the awning, and the waves washing against the canoe were fended off by the tilted planks. It also served as a standing place or gangway when required. The same native explained that the *pare arai* was a plank, or planks placed on edge on the inner edge of the *taupa* and against the base of the *tokotu*. I have not succeeded in obtaining any corroboration of this explanation, a matter that is ever desirable.

In the tradition of the sailing of Kahu and his companions from Rangitikei to the Chatham Isles, occurs the following remark:—"His sister Hawaru set to work plaiting mats to serve as a covering for the *whiti* of the canoe of Kahu."

The account of the preparation of the vessel to encounter stormy weather goes on to say that the sail (*ra tauaki*) of the canoe was furled or rolled up, and replaced by another, apparently a smaller one, the *ra poto whaiti*, while certain ropes (*taura rinoi*) were pulled taut in order to steady the sail and to prevent its being injured.

For the benefit of experts, and to give them an opportunity to correct possible errors in translation, it is desirable that the above matter be given in the original. These data are of considerable importance, and should be properly recorded.

“Ka mohiotia he kino, ka timata te whakaara i nga tokotu, i nga whiti o te waka, ka oti ka whakamaroro haere i nga huripoki o nga whiti tu, mo te puta rawa ake te tupuhi, kua pai. Katahi ka kokiri nga korewa o te waka ki waho, ka oti te taumanu nga hokai, nga auapae, katahi ano ka uhia te taupa karekare wai, ka mutu te tui, ka whakamaua nga pare arai wai turuturu, wai parati ranei. Ka oti nei ka takaia te ra tauaki, ka oti te pokai takapau, katahi ka hoatu ko te ra turuturu matua waka, ara ko te ra poto whaiti; ka whakamarotia nga taura rinoi o waho, o roto, kia kore ai e pakaru ai i te mau, e takarepa ranei te ra o te waka. I konei ka puta nga toa kia uia ki te kei o te waka whakatere ai; e rua ki te ihu o te waka, hai whakaara i te ihu o te waka; kia rua kei wuenganui o te waka hai whi i te waka kia rewa ki runga, kia mama ai te whakatere a nga angata o te kei, o te ihu. Heoi, kua pai i naia nei te rere a te waka te moana.”

Albeit the above description of sea-going vessels was given in connection with the exodus from the original homeland, yet it scarcely follows that the old man was describing craft used at that period. He may have had in his mind vessels employed at a later period, though this conjecture does not lessen the interest of the data given.

We have now another statement to scan, one that occurs in the story of the coming of the vessel *Takitumu* from Polynesia to New Zealand about 500 years ago. In the account given above we are told that the outriggers were attached when a storm was expected, so that apparently the timbers thereof were carried inboard during fair weather, which seems to be an improbable procedure. Can it be an allusion to the Tongan practice of *fakalele ama*, the sailing of a canoe with the outrigger out of the water, or something similar, some fair weather practice that called for a further extension of the booms during rough weather?

In the following account of the fitting of *Takitumu* for the 2,000 miles voyage to New Zealand, we are evidently meant to understand that the outriggers were affixed prior to the sailing of the vessel. The account is a brief one and may be given in both tongues.

“Ka meatia nga korere e rua, kotahi mo tetahi taha, kotahi mo tetahi taha o te waka. Ko nga rakau korewa he rakau mama rawa.



Ko te take o te korewa hei tiaki i te waka koi tahuri, a, ki te tupono ki te tahuri kia aranga tonu ai te waka ki runga, kia taea ai te huri ki runga i te takere e nga tangata e kaukau ana ina tahuri. Ko nga ingoa o nga korewa nei kaore au i rongoi roto i nga whare wananga."

("The two *korere* were then manipulated, one for each side of the vessel. The *korewa* timbers were composed of extremely light wood. The use of the *korewa* is to safeguard the vessel, lest it capsize, and, if it does chance to capsize, that it may continue to float, so that it may be turned on to the keel by the swimming men when it so capsizes. As to the names of the outriggers (*korewa*) I did not hear them mentioned in the *whare wananga*."

The speaker meant the proper names here, not the descriptive names. All things pertaining to an important canoe, thwarts, masts, sails, ropes, paddles, outriggers, etc., were assigned proper names. It is not certain whether *korere* is another name for an outrigger or not, but it looks like it. Herein we have a plain statement that Takitumu was a double outrigger vessel, and the office of outriggers is clearly explained. This is taken from the superior version of the tradition of the voyage, as preserved by the trained experts of the *whare wananga* or *tapu* school of learning.

In another version of this tradition certain men are instructed to launch the vessel and to attach the ocean going outriggers. (*Ka whakamau ai nga korewa moana ki runga.*) Again the plural form.

In the well-known tradition of Rata we find another mention of our *korewa*. In the account of the construction of that vessel in the isles of Polynesia occurs the following:—"Ka oti te tarai te haumi, te kei, te ihu, nga rauawa; ka oti nga taumanu, te tanihu, te rapa me te karaho, te puneke, te utuutu matua, te whakarei o te kei, nga mea katoa mo te waka taua, nga *korewa*, nga ta wai, nga hoe, nga whiti, nga tokotu, nga huapae, nga ra, nga taura, nga punga e rua, te punga whakawhenua, te punga korewa, nga toko waku, nga hoe whakaara o te ihu, nga hoe whakatere o te kei." (Then were fashioned the attached portion of the hull, the stern, the bow, the top strakes; then were finished the thwarts, the carved prow, the carved sternpiece, the deck timbers, the fore part, the *utuutu matua*, the carved devices of the stern, all things pertaining to a *waka taua*; the *outriggers*, the balers, the paddles, the support rods of the awning, the stanchions, the longitudinal braces, the sails, the ropes, the two anchors, the ground anchor, the drift anchor (sea anchor), the masts, the lifting oars of the bow, the steering oars of the stern.)

The *utuutu matua* mentioned above has not been explained by natives. Mr. Stowell thinks that it is applied to the baling place in the hold of a canoe, as the term *matua* is applied to the deepest part of the hull, and *utu* means to dip up. A corroboration of this may be noted in the first volume of White's "Ancient History of the Maori,"

t p. 67 of the Maori part, where occurs the following passage concerning Rata :—" *E haere ana ia ki te puru o te utu-tu-matua unuhia na e ia taua puru, kia hamama te puta o taua puru, a ka puta te wai-ake.*" Mr. White's rendering of this passage at p. 77 of the English part is a somewhat weird one, as follows :—"Rata went to the Puru-te-utu-tu-matua (stopper of the reservoir, where the parents, whilst standing, dip up the water) and pulled it out, etc." Whereas it states clearly that he went to the *utuutu matua*, pulled out the plug, that the hole might be open, and that the water entered the canoe.

Yet another mention of the double outrigger occurs in an account of the making and fitting of a deep sea vessel given by Te Matoranga, a man who was deeply learned in the lore of his people. It is but an extract taken from matter that I had not time to copy in its entirety, but is extremely interesting to those attracted by the feats of the Polynesian voyagers of yore, and it is highly desirable that such items should be put on record. The balance of the matter will never be recorded; the fell hand of Mahuika has attended to that.

"*Mana e rangahau mai he tohuunga tarai whakarei tere moana, kauawa tu tahi, tu rua, tu toru, tu wha, me nga pairi, me nga karawhi, me nga paewai, me nga huapae, me nga tokotu, me nga taumanu, me nga karaho, me te tauihu, me te rapa, me te haumi o te ihu, me te haumi tauaro o te kei, me te kauhora takapau, me nga torowhiti, me nga kauawhi o te mahau whakarei, me nga korewa, me nga tātā, e rua e wai, e rua tata tarawai, me nga turuturu kauawhi o nga rauawa, me era atu whakarawe o te waka pairi e oti ai te kauhora i te Moana ai a Kiwa . . . nga uhirau, me te kauawhi pehi o runga o nga torowhiti, te whakarei kauhora moana, me nga punga whakawhenua rua, me nga punga korewa e rua, me nga punga terewai e rua, kia kotahi mo te kei, kia kotahi mo te ihu, hei punga tutoro. Ko nga hoe whakaterere e rua, me nga hoe whakaara o te ihu o te waka, me nga hoe whakaumu, me nga hoe tairanga—ma ratanu enei e mahi ai.*"

This matter was given by a man well versed in the names of canoe parts and fittings, but some of these names are unknown to me. They pertained to fittings of deep sea vessels, and it is many generations since the Maori rode out on the lilting sea roads of the deep sea. Among these fittings of a deep sea vessel, however, our outrigger appears in the plural, as italicised. We will now scan some of the other names given :—

First comes an interesting reference to single, double, treble and quadruple strakes secured to the sides of the hull, showing that as many as four strakes were secured carvel-wise to the hull. It must be borne in mind, however, that the hulls of Polynesian canoes were often low sided, in some cases little more than a shaped keel. Seldom as a second top strake added to a New Zealand canoe.

The *pairi* are next mentioned, but as the strakes above mentioned are referred to as *rauawa* these *pairi* must be supplementary wash-boards. Natives sometimes apply the name of *pairi* to the *rauawa* or top strakes, though one authority says only when detached from the hull.

The next fittings mentioned are *karawhi*, and a native authority informed me that these were a form of rib fitted inside the hull, extending from the bottom of the same to the upper part of the top strake, to which they were lashed. They were sometimes termed *turuturu*. No corroboration of this note has been received. No such attachment has been noted in modern Maori craft, but ribbed vessels are used in some of the Pacific Isles. Next come the *paewai* (plural), battens that cover the inside of the joints between strakes, or between top-strake and hull. The *huapae* are the fore and aft braces on the outrigger booms, secured parallel to the hull. The *tokotu* may be either the masts or the uprights that supported the awning frame, for the same name was applied to both, and indeed any upright pole might be so termed.

The thwarts, deck material, prow and stern-piece are next mentioned, then come the two *haumi*, the pieces secured to the hull at either end in order to lengthen it. This practice was followed when no available tree could furnish the hull in one piece. The *kauhoro takapau*, or mats outspread, evidently are the awning mats, and the *torowhiti* (or *whiti*) are the bent rods forming the frame of the roof of the *mahau* or awning. The *karawhi* were explained to me as rods or poles secured longitudinally on the top of the awning roof in order to contain the matting, to grip it; the name is an appropriate one.

Now come the outriggers (*nga korewa*, a plural form), then the balers. Here we note some evidence that two forms of balers were employed. One of my native authorities told me that *tātā tarawai* was a large form of baler used with both hands, the other was a smaller implement. As to the *turuturu karawhi* of the strakes, these may be the *turuturu* or *karawhi* already mentioned. The word *kauawhi* seems to denote that they covered or 'embraced' something. *Uhirau* sounds like a covering, and, in view of the words following, seems to be another way of describing the awning mats. It is followed by the *kauawhi* that holds down or grips the *torowhiti*, apparently another allusion to the *kauawhi* of the *mahau* described above. The old man certainly repeats himself in some of his narrations. The *punga whakawhenua* are ground or holding anchors, and the *punga korewa* lighter sea anchors. The two *punga terewai* are, I believe, somewhat small stones secured to ropes utilised in testing ocean currents, and for sounding, a practice that was once explained to me by an old native. Hence, I take it, the expression *punga tutoro*. The *hoe whakaumu* and *hoe tairunga* are forms of oars or paddles quite

unknown to me, at least the names are, but *hoe whakaters* are steering oars, and *hoe whakaara* oars used forward in order to keep the bow lifted. How this was accomplished was not made clear to me. Possibly these implements were confined in some sort of grummet.

In one description of Takitumu occurs the statement. "Ko nga pairi, ara rauawa, o te waka, e wha i 'tahi taha, i 'tahi taha, ka waru ai." (The *pairi*, that is to say the *rauawa* of the vessel, were four in number on either side, making eight in all). Here we have the two names applied to the strakes. The same account says:— "Ka poua nga tokowhiti o te waka, he whariki, he aute nga uhi o nga whiti." (The *tokowhiti* of the canoe were fixed, the covering of the *whiti* were mats and *aute*). Herein *tokowhiti* is apparently used to describe the awning stanchions, and the so-called bark cloth manufactured from the bark of the paper mulberry was utilised as an awning, as well as matting. We are also told that four balers were carried, two large ones and two small ones.

One informant stated that longitudinal battens were lashed to the *whiti* or roof frame ere the covering of mats was put on. He concluded by saying:—"When the outrigger is fixed on a canoe it will not capsizes, even though it becomes filled with water."

It seems to have been a Polynesian practice to raise the outrigger of a canoe when possible, and let the vessel run free. Presumably this would increase the speed of the craft. The Tongans apply the term *fakalele hama* (*whakarere ama*) to this practice, but I am not aware as to how widespread it was.

I have a note concerning this act of raising the outrigger of a canoe, as given by a Maori, but have always viewed it with abiding suspicion, and hence have awaited further evidence.

Apparently the outrigger appendage was rare in the North Island in Cook's time. Parkinson mentions seeing it not far from Te Mahia, but Cook does not mention it on that occasion. Still they had just come from Tahiti where the outrigger was commonly employed, and hence he may not have deemed its occurrence in New Zealand worthy of special notice. Banks wrote as follows:—"They sometimes joined two small canoes together, and now and then made use of an outrigger, as is practised in the islands, but this was more common to the southward." Outrigger canoes were seen by them at Queen Charlotte Sound. Early missionaries and others of later decades do not mention them, and, so far as known evidence goes, the double canoe seems to have outlived the outrigger craft, at least in the South Island. I have a note to the effect that, in 1853 a single outrigger canoe came from Wai-marama to Te Unuunu, at Flat Point, with sixteen persons aboard, among whom were Te Waka Tahuahi, Pahoro Te Tio, and Te Meihana Takihi. I have, however, obtained



no corroborative evidence concerning this craft. My limited researches in these matters may have been the cause of missing much evidence in connection with Maori canoes.

A very old canoe in the Dominion Museum, Wellington, is probably the only outrigger craft in New Zealand. It is a remarkably interesting survival, and was evidently fashioned with stone tools. Its hull form is very peculiar and utterly unlike anything else in the way of a Maori canoe that we know of. A cross section of the hull shows it to be so narrow and crank that an outrigger must have been an imperative necessity. A somewhat sharply defined angle on the sides of the dug-out hull, and the inward trend of the upper parts of the sides, above the angle, are marked peculiarities. The Maori canoe we know differs widely from it in cross section. I once saw photographs of some canoes of the New Hebrides region (outriggers) that reminded me of this neolithic craft. This canoe was found in the former bed of a lake at or near Henley, in the South Island, and was presented to the Museum by Mr. Justice Chapman.

Although we have no information concerning the local form of outrigger, yet of its three names, *ama*, *ama-tiatia*, and *korewa*, the second may betoken the method of attachment. *Tia* denotes 'a peg,' also, 'to stick in,' 'to drive in.' *Ama-tiatia* is the 'pegged *ama*.' A Tahitian named Hiro also gave me this explanation of *ama-tiatia*, short pegs connected the *iato* (Maori *kiato*) and the float. *Waka ama* denotes an outrigger canoe in Maori.

On the East Coast of the North Island, as about Waiapu, rafts were used by fishermen, and are occasionally used now (1923) by those who set crayfish pots. A peculiar form that used to be sometimes employed in that district might be considered a very degraded form, or a survival, of the outrigger canoe. It was a double raft, composed of a fairly large one and a small one placed parallel with it and so secured by means of cross pieces of timber securely lashed. A space was left between the two. The larger one was called the *mokihi*, and the small one the *amatiatia*. In this latter word we have a distinct memory of the outrigger, the 'pegged float.'

In a recently published history of New Zealand occurs the following disturbing statement in connection with Polynesian voyagers:—" . . . . we cannot but marvel at the enterprise and skill required to accomplish journeys of thousands of miles in the double canoes which they invariably used." Now this statement must be challenged. Some of the vessels in which the ancestors of the Maori came to New Zealand were certainly outrigger craft, and ere he settled in New Zealand, the Maori was a Polynesian voyager. The description of the vessel *Takitumu* shows clearly that she was an outrigger canoe.



Again, in the tradition of the coming of Nuku to New Zealand we have a clear statement as to the use of both single and double canoes, and assuredly no single canoe would attempt the long voyage without an outrigger appendage. The little fleet of Nuku that sailed hither from Polynesia consisted of three vessels, two double canoes and one single canoe (*e rua nga waka unua, kotahi te waka marohi*). When Nuku wearied of his sojourn on the bleak coast line of Paekakariki, by the newly formed sand dunes of Te One aluahu a Manaia, he set about preparing his vessels for the return voyage to Eastern Polynesia. He then dismantled his double canoes and sailed them back to Hawaiki as single canoes, in order to facilitate his passage home. (*Ka marohitia anake nga waka nei, kua kore e unuatia, kia mama ai te hoki ki tona whenua*).

But neither Nuku nor yet any other old sea rover ever sailed a single canoe down that 2,000 mile sea road without the saving outrigger.

Of the double canoe seen off Whale Island, Bay of Plenty, by Cook and his companions, Banks wrote:—"Just at nightfall we were under a small island, from whence came off a large double canoe, or rather two canoes lashed together at a distance of about a foot, and covered with boards so as to make a kind of deck." Of a double canoe seen at Dusky Sound, Cook says:—"Their canoe, which was a small double one, just large enough to transport the whole family from place to place, lay in a small creek near the huts." Also he saw at Queen Charlotte Sound:—"A large double canoe in which were twenty or thirty people."

Brown, in his "Maori and Polynesian," speaks of "the conquerors in New Zealand" discarding the double canoe and outrigger for "the single dag-outs of the conquered." This is a very peculiar statement, and one can but wonder as to where the proofs are as to the single dagouts of the hapless conquered ones.

The old sea strollers of bygone days were careful in preparing their vessels for a long voyage, and one of the processes employed consisted of treating the hull with oil. In the account of the coming of Whatonga from Eastern Polynesia to these isles we are told that his vessel, Kurahaupo, was dressed with a vegetable gum obtained from trees. She was also treated with shark oil (*hinu ururoa tatere*), after which she was painted with *kokowai*, the hematite paint of the æolithic Maori.

It is clear that sea anchors were relied on by Polynesian voyagers in times of stress to a much greater extent than is generally known. They were much used for the purpose of steadying a canoe in a rough sea, and particularly during a storm. The Polynesian canoe, as also those of the Maori of New Zealand, demanded careful steering,

we are told, at times of pronounced wave action. All experts have told me that the aim was, not to meet the waves head on at right angles, but to keep the prow off at a slight angle, as to just how much I cannot say.

In the case of vessels of importance all fittings received proper names, and so, in describing those that brought his ancestors to these isles, the Maori will give the names of the anchors, and of the cables or ropes attached to them. Thus, in the case of the vessel *Takitumu*, we are told that her big anchor was named *Horumoana*, and its rope-cables *Marohi* and *Mawake*. It is said that anchors were provided with two such ropes, presumably to facilitate hauling them up. An uncorroborated account describes a method of lowering a sea anchor at the stern of a vessel by securing it in the bight of a rope (presumably two ropes would serve equally as well). In this case the anchor was suspended immediately beneath the canoe, while the ropes were on either side, that is one on each side. This is said to have prevented any interference with the steering oars.

We have already noted the *punga whakawhenua*, which was the principal anchor of a vessel, the heaviest one. This was the ground anchor, whatever the technical name may be. (Alas! the writer is neither an *amotawa*, nor yet a *kaumoana*.) In one relation quoted above reference is made to the provision of two such anchors for a vessel. Other narratives collected by the writer speak of this form in the singular.

There are now some five other anchor names to be considered. The *punga korewa* is described as being much smaller than the *whakawhenua*, it was employed as a sea anchor. The account just quoted also speaks of a vessel being provided with two of these, most other authorities mention one. The word *korewa* seems to denote buoyancy and drifting, hence it was applied to both an outrigger and to what may be termed a drift anchor, or sea anchor.

The *punga taupuru* is mentioned in an account of canoe manipulation from which the first item of evidence concerning the double outrigger was taken. It would appear that it must be a form of *punga korewa*, for it was used in a similar manner. The sentence is as follows:—"Ki te puta mai te hau i mua o te ihu o te waka, ka korewatia te waka, ara ka tukua nga punga taupuru o te waka, koi kaha te hoki o te waka ki muri." ("If a head wind was encountered the canoe was *korewatia*, that is the *taupuru* anchors of the canoe were lowered, lest the canoe drift astern too much.") Here the sea anchors were used to prevent drift, that is to lessen it.

The concluding part of the above sentence introduces another name, that of *mahe*:—"Me te tukutuku i te taura o te mahe o te ihu, o te kei o te waka, kia kitea ai mehemea kei te takoto pewhea te ia,

au o te moana, e ahu ana ki whea, kei te papa ranei o te moana, kei waenganui ranei, kei runga ranei, kei muri ranei, kei mua ranei o te ihu o te waka." ("And the rope of the *make* of the bow, and that of the stern of the vessel were paid out in order to ascertain the aspect and direction of the ocean current, whether far below, or midway, or at the surface, whether astern, or ahead.") Here we have an allusion to a practice of the Maori mariner that I have had described to me verbally. This was the use of a stone secured to the end of a rope in order to detect the direction and strength of ocean currents. The *punga terewai* mentioned in a quotation given above, may be the *make* under another name. It is stated that there were two of them, one at the bow and one at the stern, and that they were used as *punga turo* (questing anchors or stones). The word *toro* carries the meaning of "to reconnoitre, to discover." Another authority applies the name of *punga tara* to this questing stone, and states that the stone would be about five inches in diameter. It was always desirable to voyage with an *au kume*, a favourable current.

Some anchors are said to have been provided with a hole to accommodate the rope; these would be described as *punga kowhao*; possibly they were natural forms.

We are told that the two anchors of Tainui were named Hine and Puna, the former being the stern anchor, the latter that of the bow. The two stones set up at Kawhia to mark the final resting-place of this vessel (Tainui) that crossed the wild seas from the Society Isles, were named after these two anchors. Tradition has it that the third anchor of Tainui was left at Mokau.

One of the anchors of Matahorua, the vessel of Kupe, was named Maungaroa, because it had been obtained from a place of that name Rarotonga. This vessel had two true anchors, apparently, one was of a kind of stone called *tatarāpunga*, the other a *puwaikura* stone. Kupe is said to have left Maungaroa at Porirua, and a huge greywacke stone at that place, a waterworn boulder with a hole through one side of it, has long been treated with reverence by natives as the anchor of Kupe. It seems far too heavy and bulky, however, to have ever served as a canoe anchor.

In rough weather two steer oars were employed, and I have been informed that both were manipulated on one side of the vessel. There could also be two men at the bow to handle the two hoe *whakaara*, or *kaute*. These latter were used, as the first name denotes, to rise the vessel, to keep the bow up and so prevent it dipping too low in the pitching motion of the vessel. Under dangerous conditions two experts (*amotawa*) directed the endeavours of steersmen, bow-men, lers, outrigger tenders, etc., one being stationed near the stern, and the other near the bow of the craft.

A smooth, rounded swell (*ngaru tapuku*) was not considered dangerous. The experts would call out and advise the crew of the aspect of approaching waves, so that they would be ready to meet them by means of the practices and devices so well known to expert sea rovers. The cry:—" *He whare te ngaru*"—denoted a curling wave, one of a *taunhare* or overhanging form, also termed a *ngaru wharau*. This would be followed by the cry of " *Whakaara te hoe*," whereupon the steersmen would turn their long oars so that the blades would be held flatwise, not vertical. The cry:—" *He huka te ngaru*" betokened a broken wave. If the expert wished to hold the vessel on a rounded swell, and allow her to be carried forward in that position, he would call out:—" *Kia aronui te hoe*," whereupon the crew held their paddles stationary, at right angles with the vessel, hard gripped, and with blades vertical. This kept the vessel on the crest of the swell.

The command:—" *Kia korewa te hoe*," caused paddlers to turn their paddles flatwise, so that the edge of the blade cut through the water. This prevented, or lessened, some form of swaying or pitching. The steersmen at the stern performed a similar action at the command, " *Kia taupuru te hoe*." When a dangerous situation had eased so much that ordinary steering and paddling might be resumed, it was made known by the cry of:—" *Tiaia te hoe*." The call:—" *Kumea te hoe*" called for vigorous paddling. It might be heard when a dangerous wave was seen rolling up astern.

In ordinary paddling, on fair waters, we apply the term *kaihautu* to the man who, by means of song, gives the time to paddlers, but in strenuous times on the rolling *ara moana*, or sea-roads, the storm experts go into action. These are the *amotawa*, the experienced *kaumoana*, versed in all the wayward and dangerous moods of *Hine-moana*, the Ocean Maid; men who nurse a vessel through the dangers of the *tai maranga*, who hold a canoe among the *ngaru rauwiri*, or combers, until she rises on the broad breast of the *mutu moana*, the blind, crestless swell that will bear her safe to land.

The command:—" *Kia tapae te ihu*" meant that steersmen were to be careful to keep the prow of the vessel in such a direction that she would mount the waves in an oblique manner, as was deemed necessary. By following this method, we are told, the bow would not drop suddenly ere meeting the next wave. If a vessel swerved off the proper course, then the cry of:—" *Uea te waka*" would cause the crew to swing her back again.

In times of stress it might be necessary for two men to be stationed at each *puna wai*, or *taingawai* (baling place) of a vessel. These men so timed their actions that, as one man was emptying his baler over side, the other was filling his (*Ka paepae tera tangata i tuna tata*). It is worthy of note that the peculiar baler used by Maori canoemen



with its wrist saving hand grip of forward trend, is also met with in New Guinea.

The *waka maori* or native canoe of New Zealand was by no means the "thing of shreds and patches" that vessels of parts of Polynesia were, thanks to the heavy timber of Aotearoa. The old Maori saying—" *Waiho kia pakaru ana, he pakaru waka taua*," would be more applicable to the vessels of Eastern Polynesia. What matters it if such a thing is broken, it can easily be mended, like a war canoe when its parts work loose, it can be relashed and renovated.

When a Maori sees a canoe riding buoyantly and gracefully over the waves, he will remark—" *Me te remu karoro* "—thus likening it to a gull.

Other old time sayings are as follows:—

"He toa rere moana he kai na te wai."—"A daring sailor shall become food for the waves."

"He tiketike maunga ku taea, he tiketike moana e kore e taea."  
—"A lofty mountain may be negotiated, not so a rough sea."

"He whare tuku ki uta, he waka ama ki te moana."

"Me te whakarei e tau ana i te moana."

"Said of a fine house—It is as fine a sight as a carved canoe afloat."

"He mamore rakau e taea te topeke ake, tena he wa moana e kore e taea."—"A branchless tree-trunk may be scaled by means of a foot-loop, but it is not so easy to cross a space of ocean."

The triangular form of sail employed in Polynesia and New Zealand is also found far to the westward, as in New Guinea, Java, Bali and Madura, though other forms are also used in those regions. Carvel built outrigger craft are used on the eastern coast of Java, and N. W. New Guinea shows a peculiar form of double outrigger in which each outrigger has a double float. In this latter region a carved prow depicted in Hornell's work bears a close resemblance to the *taurapa* of a Maori *waka taua*. The carved stern of a *Moro vinta*, shown in the same work, may be compared to an illustration at page 66 of Turner's "Nineteen Years in Polynesia."

Hornell shows that the single outrigger craft is handier than the double form, save when beating to windward, hence the practice of employing the double prowed hull, with stem and stern interchangeable, as in Polynesia and elsewhere. This writer also points out the probability that outrigger craft, much larger than any now existing, were the ordinary sea going craft of Java over 1,000 years ago. He considers the single outrigger to have been the original form, and that probably Indonesians evolved the double outrigger; also that



the Polynesians used the single form when they dwelt in Indonesia in the days of long ago. This writer is noted for his sound work.

\* \* \* \*

Now, having seen our Maori voyager safely through some of the dangers of the Great Ocean of Kiwa, we will leave him to pursue his course with the calm confidence, endurance, and skill that made him king of the *ara moana* throughout many fleeting centuries. He will cross the turbulent Tuahiwi nui o Hine-moana, where dread surges meet in mid ocean, and hold his prow on the reddening sun, or a gleaming planet. When the wrath of Hine-moana rises, the cry of:—“*Runaia te waka!*” will see him leap to the foot boards to prepare his craft for the coming storm. When that storm reaches him, he will lower his rude stone sea anchors, his experts will man the long steer oars and bow oars, and, with all non-combatants housed within the sheltering *mahau*, the courageous, half naked Maori Voyager will ride out the gale.

And so, in days that lie before, he will bring his sea-weary crew and battered, string-tied craft to land at Aotearoa or Hawaii, at Rapanui or Tikopia, at Nukuhiva or Tarawa, wheresoever his gods shall guide him, or his gallant heart desires.

“*Haere mai, E Tane! Ka kau taua i te awa o Pikopiko-i-whiti.*”

# LINGUISTIC PROBLEMS OF THE PACIFIC.

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(Paper read before the Pan-Pacific Congress at Melbourne.)

IN 1920 I had the privilege of working for a few weeks with Abbé Rousselot, Director of the Laboratory of Experimental Phonetics at the *Collège de France*.

Rousselot's apparatus registers the human voice by means of tracings on smoked paper fastened on a cylinder which moves forward and revolves at the same time. The speaker speaks into a mouthpiece from which the voice passes through a rubber pipe into a little drum in which is fastened a needle that makes the tracings on the revolving cylinder. Similarly the nasal air is captured by means of an olive shaped funnel, and the vibrations of the larynx by a capsule fastened on the thyroid cartilage by a rubber cravat.\*

Rousselot's system of registering the human voice, which is also used with variations in German, British, American and Czechoslovakian universities, allows the phonetician to detect, to measure, and to study accurately, several features of the human voice, such as nasalisation, quantity, pitch, the action of the vocal chords, some of which remain unnoticed or are very imperfectly observed by the human ear.

This system can not only render great services in phonetic research, but it may also be used to teach pronunciation, and to correct defects in speech. Finally it may be applied to research and registration of living languages and dialects.

Of no less importance is the phonographic registration of the human voice.

In 1900 the *Phonogramm-Archiv* of the Academy of Science in Vienna was founded. This is a large institution, where records are collected of all possible languages and dialects. After many experiments a phonograph of comparatively modest dimensions was devised, with a view to the production of records when travelling.

Up to 1918 more than 2,000 records had been collected with this instrument from various countries: Germany, Austria, Sweden, Ireland, Wales, Brittany, Bosnia, India, New Guinea, China, South

\* See *L'Enseignement de la Prononciation par la Vue. La Parole*, No. 9, septembre, 1902.

Africa, etc.. During the war the speech of Russian prisoners was registered.

The registrations are made in wax plates and these are then treated by a galvanoplastic process by which copper negatives are obtained. These negatives are the precious objects carefully stored in the archives. It is possible to reproduce from them any number of positive wax plates at any time.

The universities of Zurich and of Hamburg later founded similar linguistic archives which exchange their plates with the Vienna institution.

Notwithstanding improvements made in recent years, the phonograph still gives an imperfect reproduction of the human voice; certain sounds are not accurately rendered. But the chief value of the phonograms is the correct reproduction of pitch and accent, two essential features of speech, which remain unexpressed in the written language. It is now generally held that every phonogram should be accompanied by a complete and accurate text, and to secure this the practice now is to take records of such texts only as have been carefully written down beforehand, and from which the speaker must not depart when speaking into the instrument.

This of course makes it difficult to take records of the speech of uneducated persons and primitive or savage peoples, and a great deal of skill is often required to succeed under such conditions.

The great value of these phonographic records is the fact that they will be available for all time. All languages undergo changes, which may become apparent in the course of one generation. Many languages have disappeared altogether from the face of the earth with the people who spoke them. The dialects of the Tasmanian natives and of the aboriginal inhabitants of the south-east coast of Australia are irretrievably lost, and the scrappy vocabularies and grammatical material collected by men who were lacking in linguistic training will probably be found insufficient to solve the intricate philological and racial problems, that we might very well be able to solve, if more complete data had been collected when it was still time.

A beginning should now be made with a systematic survey and scientific registration of the languages and dialects spoken in Australia and the Pacific.

In order to estimate the scientific value of this enterprise, some reference to language development in other parts of the world will be helpful.

H. Hirt, the great authority on Indo-European languages, in his standard work *Die Indogermanen* (pp. 17 to 22), gives us his views on the manner in which Latin in the course of time was differentiated and developed into the various Romance languages of to-day: Italian, French, Spanish, Portuguese, Roumanian, etc..

He assumes that the Latin language, as it spread over the Roman Empire was substantially the same everywhere, although the uneducated soldiers and colonists naturally spoke it less accurately than the officials who had enjoyed a literary education. The position of Latin would therefore have been somewhat similar to that of English in Australia, which is substantially the same from Perth to Sydney and from Adelaide to Cooktown. Only, this uniform Latin speech was adopted by peoples such as the Etruscans, the Keltic and Germanic subjects of Rome, the Ligurians, the Iberians, the Illyrians, etc., who spoke until then widely divergent languages. They all adopted Latin, and perhaps they all spoke this new language fairly correctly; their grammar and their vocabulary were substantially the same. But there must have been one important original difference: the accent. This accent they transferred to their new speech, so that the Kelts of Gaul spoke Latin with a Keltic accent, the Iberians of Spain spoke the same Latin, but with an Iberian accent, and so on. With this accent went also certain inherited psychological habits and tendencies.

The result was that dialectal differences arose, which were small at first, but grew as time went on. In the same way as a billiard ball, which receives a slight knock on its side at first only slightly deviates from its original course, but gradually moves further away from it, so the various Latin dialects moved away from the original tendencies of the speech of Rome, until at the present time they have become entirely separate languages, those who speak one of them being now unable to understand the others.

This theory of Hirt's was, I believe, new when he proposed it twenty years ago, and it seems a very plausible theory. But a mere theory it remains, because it is based on the scanty written evidence handed down to us from the period of about 200 B.C. to about A.D. 1000.

Languages such as Illyrian, Ligurian, and Iberian are almost completely unknown to us, and the Keltic speech of Gaul is also very imperfectly recorded. How different would the position be if during the twelve centuries just mentioned accurate texts of these languages had been written down accompanied by good phonographic plates, and if the same had been done for popular Latin. The mystery of the origin of the present Romance Languages would be cleared up at once, and the manner of linguistic development would be much better understood.

But it is useless to regret the lack of sufficient records of the past, which can never be made good. We are concerned before everything else with the present and with our own responsibilities.

Round about us things are happening just as interesting as the development of Romance languages fifteen centuries ago. The English

language is spoken on the north-eastern and south-western shores of the Pacific, and in New Zealand and other islands, surely substantially the same—as Latin was in the Roman Empire—but still with various accents, not very hard to detect, even without the aid of phonetic instruments. Other languages are vanishing, because their speakers are dying out as a race, or because they are forced to adopt the speech of a stronger or more numerous race.

In such circumstances it may happen that people are simply absorbed linguistically in the stronger or more numerous community, as is the case with the German settlers in Australia, and with many millions of European settlers amongst the English speaking inhabitants of the United States. It may also happen that from the clash of two forms of speech, a new hybrid speech arises, such as the Jargon or Pidgin English of Eastern ports and islands.

In almost every colonial settlement such jargons are found, and they are exceedingly interesting from a linguistic point of view, the case being comparable to that of hybrid plants or animals, which have lately been studied with special care to clear up the mystery of heredity.

In its earlier stages it is impossible to foresee what the future may have in store for such a mixed language. Cape Dutch seems to have been originally nothing but the jargon of the slaves of the Dutch East India Company spoken at the Cape, and resulting from the mixture of Malayo-Portuguese (itself a mixed language as the name indicates) with the Dutch of Holland. In our own days, this language is receiving official recognition in the South African Union; it is taught and used as a medium of instruction in schools and universities, and a literature is growing up in it.

Another colonial Dutch jargon, Papiamento, is practically the only language in common use in Curaçao and neighbouring islands. The Negro-Dutch jargon of the Danish West Indies is, I believe, now extinct, but well known from literary records.

Several kinds of colonial French dialects have developed as colloquial languages in Mauritius, Réunion, Africa, the West Indies, etc., and it is by no means impossible that these jargons will one day become literary languages, just as Cape Dutch.

It is significant that when Australian forces landed in German New Guinea in 1914, they found that Pidgin-English was there in use amongst the natives, and it was in this language that the change of authority was officially and publicly announced to the population.

To treat such mixed languages with contempt as vulgar and unworthy of serious study would be most unscientific. Apart from the absorbing linguistic interest they present, they may at any time become a vehicle of culture and the medium of artistic expression.



The *lingua vulgaris* of the thirteenth century in Italy soon became the exquisite instrument for poetic expression, which we find in Dante's immortal epic and in Petrarca's *Rime*.

But, to return to the Pacific regions, and to our own Australian continent, perhaps there is no part of the world, where systematic research in the native language is more urgently needed, and where it is more sadly neglected. We must gratefully acknowledge the valuable data collected by many enthusiastic workers in the way of vocabularies and grammatical sketches. But the efforts made by several of them to go deeper into the subject, and prove the relationship of Australian languages with African, with Andaman, Dravidian, Papuan or Polynesian must be considered as premature.

The same may probably be said of various theories linking up Polynesian languages with Semitic or with other languages of the continent of Asia or of America.

The best statement of our present day knowledge of these questions is, I believe, still to be found in the Reports of the Cambridge Anthropological Expedition to the Torres Straits, Vol. III., "Linguistics," by Sidney H. Ray, pp. 504-527 (1907.)

The first serious attempt to classify the Australian languages is P. W. Schmidt, *Gliederung der Australischen Sprachen* (Vienna, 1919). But much of this classification will probably require revision later, when more accurate information about many of these languages is available.

What seems most urgently required now is a systematical production of thoroughly reliable monographs on as many as possible of the principal languages. These monographs might well take as a model Ray's Report on the languages of the Torres Straits, without being necessarily so voluminous. Languages threatened with extinction should be taken in hand first, and then languages typical of groups of dialects.

At the same time phonographic records on the lines of the Vienna collection should be produced. A sufficient number of these should be made to send specimens to the Vienna collection in return for plates produced there. As soon as other Pacific countries fall in line plates would naturally be exchanged with them also. Tracings produced with Rousselot's apparatus should also be obtained wherever possible.

As far as Australia and the Pacific Islands are concerned, this work would most naturally be entrusted to one or more young Australasian linguists who would have to be sent to Europe for one or two years to complete their philological training and do practical work in the phonetic laboratory of the *Collège de France* and in the *Vienna Phonogramm-Archiv*. The Smithsonian Institute at Washington and other kindred institutions might also very well be visited.

The research work here suggested should, I think, form the first department of an *Institute of Pacific Studies*, which our Commonwealth Government will have to establish sooner or later, and adequately endow.

There is a rich linguistic harvest waiting to be gathered in the Pacific, and young Australia and young New Zealand will have to do their share. In this way we may hope that anthropology, as well as linguistics, will be considerably advanced, and that much new light will be thrown on the history of mankind in these parts of the globe.

But perhaps this will not be all. Who knows if our young investigators, approaching linguistic questions with the keenness and freshness characteristic of the race, and feeling directly the throb of life rather than studying old manuscripts and inscriptions, will not help to renew linguistic science itself.

It has been felt for some time that a new spirit must come to our old traditional philology. It still follows too slavishly the road opened up by its founders a century ago. Certain phonetic laws have been discovered and have been applied as if they referred to natural phenomena apart from man. But linguistics is not a natural science in the ordinary sense. Bergson has shown how to penetrate a reality of which intellectual science has no conception, because it is unable to account for the continuity of life. His doctrine of reality has renewed philosophy. Linguistics also need reforming in the same way. The phenomena of language should be understood or rather felt by intuition as human activities in the successive forms of society. It will not do to understand intellectually an abstract, lifeless order of facts, as natural science does, or tries to do. One should feel, or rather live over again in oneself what has been lived by other human beings (cf. F. Schürr, *Sprachwissenschaft und Zeitgeist*, Marburg, 1922).

May Australasia shoulder her responsibilities, and may this Congress be the starting point of a new era of more intensive and more fruitful linguistic research in this part of the world.

## MARRIAGE IN TONGA.

By E. E. V. COLLOCOTT.

A buggy, gay with floating mat and festooned with flower-decked girdles, drives along the road, and stops before one of the Missions. A girl is assisted to alight; she needs assistance; free action is made impossible by the voluminous folds of native cloth with which she is enveloped from bosom to feet. The bride, for bride she is, is joined by her lover, and together they present themselves before the minister; friends and relatives crowd in after them. They hand over the permit to marry issued by the Government, without which Tongan citizens may not wed. The short Church marriage service is soon finished, certificates are signed, a small fee is collected, and the officiating clergyman, under threat of dire pains of a monetary sort, must attend to registration with due promptitude. Usually no ring is given, but all the civil and religious procedure is essentially the same as marks the espousals of an English country youth and maid. All is in fact conducted under an English legal instrument which owes its being to the Western Pacific Commission. The civil and religious ceremonies have the same validity as in England, to confer legitimacy on offspring, and ensure rights of succession.

In all this there has been nothing Tongan, excepting the great cumbrous dress of native cloth worn by the bride, and the fact that she perhaps drove to and away from the Mission house seated on the knee of one of her relatives. But when the requirements of modern law have been satisfied, bride and bridegroom and relatives hie away home, and in the wedding feast perform in essence the ancient marriage ceremony, which is an exchange of food and other gifts between the relatives of the bride and the relatives of the bridegroom. The ceremony takes place at a house selected by the groom's people, either his own house or one belonging to some other member of his family. Along the front of the house a pretty and cool shelter of green coconut leaves has been erected, a sort of temporary verandah, in which is arranged a heap of mats and native cloth to serve as a dais or throne. The bride awaits her husband in the home of her parents—nowadays she returns thither after the religious marriage service, or if this has taken place too late for the Tongan ceremony to be held on the same day, she will return from her husband's home to her parents on the following day. Both bride

and bridegroom are prepared for each other by bathing and anointing with sweet-scented oil, and are clad in fine mats and cloth. On both sides pigs are killed and cooked, and all the usual preparations made for feasting. The lavishness of the feast, and the amount of cloth and mats collected, are indications of the wealth and station of the families. When all is ready the bridegroom, accompanied by a man or woman who is called his "mother" *fæ*, and who must be a member of his mother's, or his mother's mother's brother's family, goes to the bride's home, and finds her adorned and waiting for him. She too is attended by a "mother" of her mother's, or mother's mother's brother's family. A procession is formed. Bride and bridegroom lead, closely followed by the "mothers" bearing baskets in which are bottles of oil, wherewith they continually anoint the couple lest the oil dry on them. Then come the bride's female relatives, bearing the mats and cloth which her folk have prepared for the wedding; and last are her male kin with the food, including a special basket called the *veifua*, distinctive of weddings and funerals, and which is the principal food offering of the ceremony. When the party reaches the house the "mothers" seat themselves on the dais of mats under the shelter of greenery, and bride and bridegroom sit on their respective "mothers'" laps. The house is filled with women connected with the bride, no men are there, their place is with the food, which is their especial care. Presently a woman is called from the house. She approaches the bride, assists her to rise, and leads her by the hand into the house, where the women divest her of her clothes. The practice nowadays, whatever older custom may have been, is for the girl to wear inner garments which are not disturbed, but she is stripped of native cloth and mats and her wedding dress of European material. This clothing has been provided by the bride's family, and will subsequently fall to the share of the bridegroom's people. She is then arrayed in clothing, inferior in quality and quantity to that taken from her, but still good, provided by the bridegroom, and led forth again to her "mother's" lap; but presently another woman is called from the house to come and lead her in. Again she is undressed, and clothed afresh in raiment given by the husband. The clothing taken from her on this second occasion is for the bride's people. Then she is taken out to her seat on her "mother's" lap. If the bridegroom is wealthy the bride may be dressed in several fresh changes, all the dresses given by the groom being gifts to the bride's family. Usually two changes suffice. Then the *kava* is beaten up, the bowl being placed at a convenient distance off in front of the dais. When the *kava* is ready for drinking, but before it has been served, the husband and his "mother" rise and go into the house, where the women undress him, putting aside his clothing for the bride's family. He is dressed again in clothes, of



good quality and including fine mats, of his own provision, and a girdle of sweet-smelling leaves and flowers is put around his neck. He goes out and stands midway between the *kava* bowl and the mat dais, and a woman who is *fahu*\* on the bride's side calls the name of some important personage of the bride's father's family to go and take the bridegroom's dress. The bridegroom may either be alone, or accompanied by his "mother." The one named at once steps forth and takes immediate possession. The bridegroom then returns to the house, and when he has been garbed anew, comes once more into the space between the *kava* bowl and dais, and the *fahu* calls someone of the bride's mother's family to be the recipient of the second dress. Possession is at once taken as before. This may be repeated twice more, the third set of clothes going to the bride's father's, and the fourth to the bride's mother's family, but as a rule the first and second presentations are sufficient. The bridegroom finally comes forth from the house garbed in raiment which the *fahu* subsequently claims for herself, but which is meanwhile worn by the groom. This dress is called the dress for serving *kava*. The *kava* is now served, the bridegroom taking the cups round, whilst the bride sits under the canopy, and has presented to her the third, the chief, cup. She is the chief on this occasion. The food distributed with the *kava* is the largest pig in the baskets brought by the bridegroom's family, and the back, the chiefly portion, is laid before the bride. As in other *kava* ceremonial the food is not eaten by those to whom it is presented, but is borne off by certain people who are *fahu* to the several recipients.

After the *kava* has been drunk the food is distributed, that provided by the bride's people amongst the groom's family, and that given by the man amongst the bride's folk. Similarly the mats and cloth are exchanged between the families. The bridegroom has nominally the disposal of that given by the bride's relatives, and the pride of the presentations of her husband's folk, but very little of it will fall to their share. The distribution will probably not be made on the day of the wedding feast, but at some convenient time a little later. Meanwhile the mats and cloth given by the man's party are taken home by the bride's parents, and kept till she can go and attend to their disposal. Amongst regular wedding gifts are candle-nuts and towels of native cloth, which are presented to both bride and bridegroom several days before the ceremony, to serve them in their preparatory ablutions. Candlenuts are ground in the mouth, and used as a detergent. There is no obligation to use these gifts

\* The *fahu* is extremely important in Tongan society. It is a relative who has wide rights and authority over a man, namely his sister, or his father's sister, or their children.



for their ostensible purpose, and indeed the chances are that they will not be so used, but will be donated to friends with the other gifts. The bride's relatives, moreover, bring mats nominally to serve as a couch for the children that shall be born of the union. These mats, however, are not retained by the happy couple, but are shared out in the general distribution.

Mention has been made of the *veifua*, the special basket of food. As this is borne to the site of the ceremony the most important person on the groom's side approaches and takes the liver and eats it, or gives it to whomsoever he will, or else marks his consequence by striking the basket or its pig with his hand. This basket falls to the lot of the *fahu* of the bridegroom, probably to his sister.

When the ceremony is finished, the bride and bridegroom, who have probably nothing of the food provided for the wedding, have a quiet meal together *en famille*, and their domestic life has fairly begun.

One other ceremony remains, that connected with the bride's virginity. The man who has married a maiden awaits a suitable opportunity, and prepares a large basket of food which he presents to her parents. He also gives them the mat bearing the sign of her virginity. With increasing refinement of manners the practice is gaining ground of substituting for this a simple present of a fine mat. Elderly female relatives sometimes sleep with the newly married, and if an old woman interested in the maiden suspects that her credentials are not as sound as they should be she may preserve her reputation by a little pious fraud.

The high chief Tukuaho, who died towards the close of the nineteenth century, left a diary in which is an interesting account of the older procedure followed at the marriage of a great chief. In essence the ceremony is identical with the foregoing description of a modern wedding; but the bridegroom is represented as going by night with a large following of his people, and bringing his bride home with loud shouts and exclamations. Amongst the exclamations said to be proper to the occasion is gibberish, untranslatable as either Tongan or Samoan, but which seems to be misrendered Samoan, and to contain references to rites of Samoan marriage which found no place in Tongan ceremony. William Mariner, who spent four years in Tonga in the early part of the nineteenth century, saw a high chief married with Samoan rites, though a portion of the Samoan ceremonial was omitted, and it may well be that Samoan marriage customs came to have a certain vogue in fashionable circles. The diarist speaks of these high society functions being extended over several days, and being graced with various dances.

Although marriages, especially of chiefs, are frequently arranged by the elders, yet the youths and girls have considerable freedom in

the choice of their partners. The young man anticipates the interview with the lady's parents with much the same feelings of confidence or trepidation as animate the breast of his European contemporary in like circumstances. It is not always the good will of the girl's own father that must be won, as his inclinations may often be overborne by his elder brothers, or by his sisters—the "brothers" and "sisters" may of course be cousins near or distant—who are his superiors in the family conclave. The chances are that the lovers' wishes will be met, but the young lady does not as a rule pine in the face of an adverse decision, and the disappointed swain is more likely to find comfort in the reflection that there are other pebbles on the beach, than to indulge gloomy musings upon the unkind fate that has stood between him and his soul-mate.

Occasionally head strong youth refuses to acquiesce in the parental prohibition, and the lovers elope. If they are both of age the Government permit to marry cannot be withheld, the religious ceremony follows as a matter of course, and the happy, or almost happy, couple wait with a confidence, which experience usually shows to be well founded, that the resentment of their kin will be short-lived, and that, like the philosophers they are, they will accept the inevitable, and acknowledge the undutiful son and daughter by a performance of the proper nuptial rites.

The youth who goes a-courting is frequently moved to call the muse to his aid, and to tell his adoration in "songs of sweet-scented flowers," compositions which, though rather rough in form, display much poetic feeling both for love and some of the beauties of nature.

The old practice seems to have been for the matron's hair to be cut differently from the maiden's. The virgin wore two long locks at the back of the head, but at marriage these were cut off, and the hair then allowed to grow an equal length all over the head. Although marriage was marked by extensive ritual the bond was easily terminable. No life-long guarantees were expected or given. Late in the eighteenth century one of the artisans in the party sent by the London Missionary Society to Tonga fell in love with a Tongan girl, and a date was fixed for the marriage. Previous to the ceremony the missionaries explained to the young lady the nature of the bond she was about to contract, but at the mention of a life-long union she promptly refused to go on with the matter. She was quite prepared for a union for as long as their mutual liking dictated, but would not be bound "till death do you part."

The great chiefs had numerous harems, but it cannot be inferred that there was any degrading inferiority of women. The Tongan, indeed, is justly proud of the position which his women-folk have always enjoyed. Genealogies show that great ladies frequently had many lovers. The system was free and easy, and the women fared

as well as the men. The structure of society provided in practice the independence of women, which is the dream of some modern feminists. It is necessary for the European to rid his mind of associations of nastiness in dealing with these matters, and to remember that the Polynesian receives the facts connected with the handing on of human life with the same simple candour as the phenomena observed in his garden or anywhere else. I have overheard a man, whose domestic life is impeccable judged by strict European standards, discussing the numerous loves of a famous chiefly lady of bygone days, and his comment was what an extraordinarily fine woman she must have been to be desirable in the eyes of so many husbands, to all of whom she bore children.

In general it was probably an honour for a girl to attract the attention of a chief of high rank, and apart from marriages marked by the elaborate exchange of gifts, there were many less formal unions, which did not lead to a girl becoming a regular inmate of a chief's compound. A girl who is taken to a chief is sometimes said to "roll his mat," indicating her duty of rolling up the sleeping-mats and making herself generally useful about the person of her lord. A village used sometimes to select a beautiful maiden to be the temporary mate of a chief, and bear them a babe of lofty lineage. The child was called by a special name indicating that he belonged to the whole village. Children are desired by both men and women. In the marriage ceremonies described in Tukuaho's diary there is a blessing of the bride, "And may you bear children, yea twins."

For a man to succumb to the attractions of a girl of inferior rank is not uncommon, but for a woman to condescend to an inferior is rare; or it may be expressed in another way, that a man would scarcely dare aspire to a lady of superior station to himself. Such aspirations would be resented by other men as offensively presumptuous. This led to the frequent marriage of the female Tui Tonga, the highest woman of all excepting her own daughter, to a foreigner. It is only in a comparatively recent period that the genealogies exhibit certain cases of the marriage of this august lady and in these instances the bridegroom always belongs to one or two houses of Fijian extraction. The first recorded marriage of a female Tui Tonga is to a chief who actually came from Fiji; but the outside blood once introduced sufficed to give the house enough of foreignness to exempt its members from the restrictions that bound the Tongan, and to provide bridegrooms for the exalted brides. This lady must have been so restricted in the choice of a husband as to have been generally a strict monogamist. It was not uncommon for the wife of a chief to obtain other wives for him, usually it would seem, selected from amongst her own younger female relatives over whom she had power or influence. These secondary brides were

called *fokonofa*. The Tongan creation myth relates that when the gods were first a-courting, and the world was in course of coming into being, one of the goddesses secured as *fokonofa* for her husband two of her sister divinities, and tradition ascribes to the ancient king Tui-ta-tui, wives so successfully zealous in adding to his harem, that even Solomon's household does not appear by comparison the outstanding achievement that the unenterprising European might regard it.

The chiefs were said to have a pre-emptive right to all the women in their tribes. In theory the chiefs had the absolute disposal of the persons and property of their people. Stories are related of the king Tukuaho—not the diarist—which show the harsh caprice with which a great lord might treat his people, as, for example, when he ordered the hands of his cooks to be cut off because they had prepared his food badly; but the murder of this tyrant after less than three years of his sullen rule shows that, in Tonga as elsewhere, natural human reactions impose practical checks on theoretical absolutism. Evidently the chiefs freely used their privileges in love, but there is no reason to suppose that the lower orders of society were thereby deprived of mates. Intrigue with the wife of a superior, however, was a very grave breach, and might even lead to the man being killed by his own people, without waiting for the vengeance of the chief. On the other hand there is a story of a king who left his wife and babe in charge of another man whilst he went on a voyage, but found on his return that the pair had abused his trust. He forgave them both, and gave the lady as wife to his unfaithful friend.

Cousin marriages are rare. Brothers and sisters are called by the same term as first cousins, and more distant collateral relatives. All these "brothers" and "sisters," near and remote, are alike *tabu* to each other. There are restrictions, on the whole well observed, but weakening in these latter days, on the most ordinary intercourse between youths and girls so related. More liberty in the matter of cousin marriages is accorded the great chiefly families than to commoners, and a cousin marriage (probably when it does happen mating of rather distant cousins) amongst the lower orders of society is spoken of as an imitation of the chiefs. In the days when the Tui Tonga chieftainship flourished there was a well established custom for him to take as his principal wife, and the mother of his successor, the daughter of the Tui Haatakalaua, the chief next in rank to the Tui Tonga. At a later period, when the Tui Haatakalaua chieftainship had declined before the growing importance of the Tui Kanokupolu, the daughter of the latter lord used regularly to become the principal wife of the Tui Tonga. This resulted in the cross-cousin marriage of the Tui Tonga to his mother's brother's daughter.



The rank of the children of the various wives of a chief depended on that of their mothers. In the case of two wives of equal rank the elder normally took precedence of the younger, and her children over those of the younger woman. A wife might so win her husband's affections as to cause him to grant precedence to her children over those of an elder woman of equal rank, but favouritism could scarcely avail to elevate the children of a specially beloved wife above those of a higher chieftainess. A special term was used for the principal wife.

Many stories are told of handsome men, called *mana'ia*, possessed of *mana*, supernatural power, whose charms were irresistible to the ladies. The patron of these boudoir knights was Jinilau, the god of beauty, whose gift their handsome persons were, and who were themselves sometimes even called Jinilau. The custom obtained, and is more or less perpetuated in modern marriages, for a maiden to present a particular mat to the man to whom she gave her virgin love, and the prestige of the *mana'ia* was in proportion to the number of these trophies he had won.

The *mana'ia* was prepared for his amorous calling with the carefulness of an aspirant to a learned profession or an athletic championship. His friends and relatives, male and female, omitted no attention that should increase his attractiveness. All that was demanded of him was that he should look well, and fascinate the ladies. High rank, though valued, was not indispensable; but it is obviously improbable that the profession of lover could have been open to men of very humble birth. Even personal courage and prowess were not essential—merely good looks. The name and fame of notable male beauties are perpetuated in tale and proverb, and extraordinary sway over ladies' hearts is ascribed to them. It is related that a chieftainess was about to be married to a great lord; the nuptials indeed had commenced, and the guests were seated on the first evening of the ceremonies in a house with the bride. A specially favoured *mana'ia*, who desired the girl for himself, thrust his hand, on which was tattooed a distinctive mark, through a hole in the thatch roof. The bride-elect, thus apprised of who awaited her without, slipped from the house, and eloped with the *mana'ia*. I am told that the *mana'ia* had no real status in Tongan social organisation; but that families forwarded the interests of their handsome men merely to assist them to form advantageous connections, and collect large quantities of mats and cloth, in which they all might share. The first holder of the great Tungi title was called Tungi Mana'ia, and tradition ascribes his elevation to exalted rank to his personal attractiveness, but the genealogies show that this is a mistaken notion, as in his veins flowed the highest chiefly blood of Tonga. The present Tungi is the consort of the reigning Queen.



# AN HISTORICAL NARRATIVE CONCERNING THE CONQUEST OF KAIPARA AND TAMAKI BY NGATI-WHATUA.

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WRITTEN BY PAUL TUHAERE.

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## INTRODUCTORY REMARKS.

THE manuscript from which this translation was made is one of several compiled by the late Paora Tuhaere. This particular one he wrote for me several years prior to his death.

Another much longer and detailed "History of Ngati-Whatu," by Paora, was deposited in the Auckland Public Library, and has also been translated by me.

The late Mr. Percy Smith apparently had access to still another of Paora's manuscript histories, for he gave abstracts from one (in his history of the "Peopling of the North") which is neither of the above,

The war mentioned in the Far North which opens the narrative, took place somewhere about the end of the 14th Century, and the termination of the narrative brings it to about the end of the 18th Century. It therefore recites the fortunes of the famous Ngati-Whatua tribe during that part of Maori history when inter-tribal struggles were proceeding, which culminated in the state of affairs the early European visitors found existing in this country in the early years of the 19th Century.

For the fortunes of the Ngati-Whatua people subsequent to that time until A.D. 1840, I would refer the student to Mr. Percy Smith's "Wars of the 19th Century."

The tribal pedigree given is tabulated from the manuscript version, and I have inserted several further family pedigrees to show the relative connections of the various chiefs mentioned in this history.

The value of these records will increase as years go on, when in future times people will long to know of the doings of Ancient Maori Land, where civilization is now altering the very face of the country side, leaving little else than the old Maori place names as reminders of the past. The events now recorded took place before yet the Pakeha settled on these shores.

A few explanatory notes and also a list of place names is added to assist the student of Maori history to locate the places mentioned.

THE original home of these tribes, the Ngati-Whatua,<sup>1</sup> Te Tao-u,<sup>2</sup> the Uri-o-Hau,<sup>3</sup> otherwise the Nga-Ririki,<sup>4</sup> was Muri-whenua. This indeed was the cause that they came hither—an act of murder by Ngati-Moe-Mate-a-ika, whereby Nga-Ririki suffered. Thereupon came hither these tribes to obtain revenge for that murder. Some tribes living at Hokianga were fought against and defeated. Having thus come hither, they settled down at Maunganui, and lived there permanently. They then began to slay the tribes there, who were exterminated. They then lived in separate parties there. Some were at Maunganui, some at Kaihu, and some at the Wairoa.

Maunga-nui was the *pa* which stood between these tribes the Nga-Ririki, Ngati-Whatua, Te Uri-o-Hau, Te Roroa,<sup>5</sup> Ngati-Pou and Ngati-Rongo. The Roroa and Ngati-Pou spread out as far as Wai-Kara and Wai-mamaku to Hokianga. The Nga-Ririki were at Kaihu, Tutaki<sup>6</sup> at Ripiro. The Ngati-Rongo at Motu-Wheteke and Te Wairoa, Te Uri-o-Hau at Pouto.

The reason these tribes attacked one another, was a quarrel about food. Nga-Ririki were a tribe which cultivated the *kumara*, the *taro* and the *uwhi* (? yam).<sup>7</sup> Now Ngati-Rongo, Tutaki and Te Uri-o-Hau were a fern-root eating people. The Uri-o-Hau were not aware that the Nga-Ririki grew *kumaras*. Now Papapounamu desired to go to Kaihu. Arrived there, he saw the *kumara*, *taro*, *uwhi*,<sup>7</sup> the *roroi*<sup>8</sup> and *kao*.<sup>9</sup> The man ate thereof, and thought of the goodness of the foods they lived upon. This idea became firmly fixed in his heart. Returned to his home at Pouto, he spoke to his younger brother about the abundance of the food. Hau-moe-wharangi said, "Never mind, oh elder brother, why run after the food of the feet of Tu-kaheke. Just leave things be, gather it up into crates made of kahikatoa."<sup>10</sup> After that the Uri-o-Hau dug up the crops, and began to kill the people, this was an act of treachery. Te Nganaia of Nga-Ririki was killed. Thereupon followed a great war, Te Uri-o-Hau were defeated. Then it was that Toutara perished, being pierced by a spear which struck (her) on the breast. Hence this name Te Tao-u. Tou-tara belonged to the Uri-o-Hau.

Thereafter Kawharu went to see his sister Kohari, who had married Te Rawhara, one of the chiefs of the *pa* at Waiherunga, Te Huhunu was another of the chiefs. When near the *pa* at night-fall he sounded his whistle (calling out), "Who am I?" The *pa* then knew that it was Kawharu. A reply call was promptly made. "Thou art he who hath been heard of!" Then Kawharu went right into the *pa*. When these people saw that it was Kawharu who had arrived, they murdered him. They then went forth to fight the followers of Kawharu. Those numbered seventy twice told. The pursuers were four hundred twice told, and they were enticed forward by strategy. When they were at close quarters, it was proposed to

charge back upon them. But another (chief) said, "Wait until I can see the sea at Unu-whao."<sup>11</sup> When the pursuers were close at hand, Te Huhunu called out, "A combat! a combat at close quarters!" Then replied the seventy, "Death, oh my elder brother!" Thereupon they faced back, two were the *mata-ika* (first to fall) then another two were the *tatao* (the second to fall). Thereupon there was a debacle, and some hundreds were slain. Te Huhunu was captured. Te Huhunu asked that he be spared. "Thou wilt not live, even if our parent (uncle, i.e., Kawharu) was alive, I would be departing from fixed custom" (such was the reply). When that woman (Kohari?) saw that the people were being killed, she assembled the women of the *pa* in one house. When the *pa* fell the attackers found that the women had been made *tapu* so they did not lay their hands (upon them).<sup>12</sup> Thus were exterminated the men of that tribe, which became extinct.

After that Te Uri-o-Hau crossed to this side of Kaipara to plunder the food supplies of Ngitu, and of Te Kawau. Then it was that Haumoewharangi was killed, he was murdered. Haumoewharangi and his daughter Rongo-te-Ipo had been left behind, there being no canoe to transport his food. Going inland, Haumoewharangi was seen by those people. The people came forth from the *pa* and slew Haumoewharangi. When the Uri-o-Hau found that he had been slain, that people returned and besieged the *pa*. The Ngitu (*pa*) fell, three *pas* were taken in the one day, the people exterminated, being slain.

Then came Ngati-Whatua and Te Tao-u, and the men of Nga-iwi and Te Kawerau were fought against. The tribes of this side of Kaipara were defeated and then abandoned that part. Two canoes were manned, the "Potae-of-Wahieroa" was one and the "Wharau" was another. These were the canoes whereby was captured the Kaipara. Setting forth, they came straight on and landed right at the Awaroa. Such was the taking of the land. Te Tao-u lived permanently at Te Makiri. Te Wai-o-Hua did not fight against Te Tao-u in those times. Tou-Kararai married Hukatere and begot Tuperiri. Tou-Kararai belonged to the Nga-iwi, Te Wai-o-hua and Nga-Oho, Hukatere belonged to the Tao-u. Tuperiri was well on years, and his children already born some time, when occurred the murder at Te Wai-tuoro. That people attempted to murder him, but he was not caught, Tuperiri escaped.

Kiwi (of Waiohua) then uttered a proverb to Waha-akiaki, "Let be thus, thy breast-bone to-morrow shall be hanging on the *pohutu-wa* tree at Kai-arero!" Waha-akiaki replied thereto, "Rather thus shall it be, thy breast-bone shall be hanging from the *puriri* at aunga-a-Ngu!" Kiwi retorted, "When Rehua-i-te-rangi perhaps

decides that Kiwi shall die, yes, then he shall die!" Kiwi then returned.

Thereafter Te Tao-u took revenge, in broad daylight all (the *pas* at) Tau-oma fell. The revenge of Te Wai-o-Hua was a battle, when Te Huru and Te Kaura were killed. Te Waha-akiaki then came to take revenge, and came to Awhitu. Then the *pa* at Tara-taua fell, so he returned again. When Kiwi heard that this was the doings of his enemy Waha-akiaki, he sent his messengers to all the *pas*. The seas were covered, and the land routes also by the multitude of Nga-Iwi coming to attack Waha-akiaki and Te Wai-taheke. Waha-akiaki and his company numbered sixty, who were picked warriors only. Going along gently they at last were close (to their pursuers). The party desired to charge back, but Waha-akiaki ordered, "Await, till they are actually at hand." So followed on the many thousands of the Wai-o-Hua. Now, being right close up then they charged. There were two *matu-iki* (first slain) then came another couple, making four. So it was, they broke away and fled being slain as they ran even to the waterside on the sandy beach.<sup>13</sup> Then came forward Kiwi, and also came forward Waha-akiaki. Kiwi made a blow at Waha-akiaki, which was parried and missed its mark. Then Waha-akiaki made a blow, and Kiwi fell and was killed. Thereupon they fled. When Kiwi was dis-membered, there was found resting there his god Rehua, a lizard. That god being swallowed, the man who so swallowed it, died at once. The breast bone of Kiwi being brought to the *puriri* at Maunga-a-Ngu in order to fulfil their prediction.

After that they (the Tao-u) came back by Wai-te-Mata. There was one canoe, there being thirty men on the canoe. The men were lying down inside the canoe, two men rowing the canoe. When seen from the *pa* at Taura-rua, it was thought to be a canoe (bringing cut flax. When near to Kohimaramara, the people of the *pa* came out to look. The canoe was then brought to land there. Thereupon the war-party aboard that canoe rose up and attacked them. Kohimaramara fell, going on to Orakei, all (the *pas* there) were captured. Next day (fell) Taura-rua and Maunga-hekea. Thus all Ngati-Whatua came to slay the people of Tamaki, who were destroyed. The survivors gathered at Mangere, thereupon Tuperiri and his war-party proceeded thither, and all (the *pas*) at Mangere fell. This was the last *pa*, and the termination of the warfare. Te Tao-u and Tuperiri then settled down upon his land at Tamaki.



HE TATAU-KORERO MO TE RAUPATUTANGA  
O KAIPARA ME TAMAKI I A NGATI-WHATUA.

---

NA PAORA TUHAERE I TUHIA.

---

KO te whenua tuturu o enei iwi o Ngati-Whatua, o Te 'Tao-u, o Te Uri-o-Hau, ara o Nga-Ririki-ko Muri-whenua. Tenei ano te take i haeremai ai, he kohuru na Ngati-Kahu-Moemate-a-Ika. Ka mate ko Nga-Ririki ka whaka-tika mai enei iwi te rapu utu mo raua kohuru. Ko etahi iwi e noho ana ki Hokianga ka whawhaitia-ka mate. Haere tonu mai, noho rawa mai Maunganui, ko noho tuturu ireira. Katahuri ki te patu i nga iwi o reira, kangaro. Ka wahi ta ratou noho i reira-ko etahi ki Maunganui, ko etahi ki Kaihu, ko etahi ki Te Wairoa.

Ko Maunganui te pa i wehewehe ai enei iwi Nga-Ririki, Ngati-Whatua, Te Uri-o-Hau, Te Roroa, Ngati-Pou, Ngati-Rongo. Ko Te Roroa, ko Ngati-Pou i ahu atu ki Waikara, Wai-mamaku ki Hokianga. Ko te Nga-Ririki ki Kai-hu. Ko Tutaki ki Ripiro, ko Ngati-rongo ki Motu-wheteke, Te Wairoa. Ko Te Uri-o-Hau ki Pouto.

Ko te take i tahuri ai enei iwi kia raua ano, he kai te take, ko Nga-Ririki he iwi mahi kumara, taro, uwahi. Me Ngati-Rongo ko Tutaki ko Te Uri-o-Hau he iwi Kai-roi. Kahore Te Uri-o-Hau i mohio kei te mahi kumara a Nga-Ririki. Ka hiahia a Papa-pou-amanu ki te haere ki Kaihu. Ka tae, ka kite i te kumara, i te taro, i te uwahi, i te roro, i te kao. Ka kai te tangata ra, me te whakaaro i te pai o nga kai e kainga nei e ratou. Mau tonu i roto o tana takau. Hoki noa ki tana kainga ki Pouto, ka korero ki tana teina i te nui o te kai. Ka ki atu a Haumoewharangi, "He aha koa, e takana, te kai a te waewae o Tu-kaheke i whai, wai ho ra, me rori i te rori kahikatoa." Muri iho kua huaki i te Uri-o-Hau, kua mata te patu tangata, he kohuru. Ka mate ko Te Nganaia no ngaririki. Muri iho he whawhai nui, ka mate ko Te Uri-o-Hau, ka nga Toutara i konei-i werohia ki te tao, i tu ki te u. Koia tenei goa te Tao-u; i roto i Te Uri-o-Hau a Tou-tara.

Muri iho ko Kawharu ka haere atu kia kite i tana tuahine i Kahari, i moe ia Te Rawhara, i tetehi o nga rangatira o te pa ki Wai-he-runga, ko Te Huhunu tetehi rangatira. Ka tata ki te pa i te po, ka tangi tana whio, "Ko wai ra ahau?" Kua mohio te pa ra ko Kawharu. Ka whio ake, "Ko koe ano e rongona-ake nei!" Katahi ka haere iho a Kawharu ki te pa, ka kite te iwi ra, kua tae u a Kawharu, ka kohurutia, ka mate. Haere tonu atu ki te whai i te nuinga o Kawharu. E whitu-te-kau topu o ratou, ko te kai-arua,



e wha-rau topu. Ka manu-ka-whakitia e ratou. Ka tata, ka mea kia whaka-hokia. Ka ki atu tetehi, "Kia kite au i te tai o Unu-whao." Kua tata te kai-whai, ka karanga mai a Te Huhunu, "He Kawau! he kawau maro!" Ka ki atu to te hokowhitu, "Mate e taku tuakana!" Katahi ka whakahokia, tokorua nga mata-ika te tahi tokorua nga tatao. Kua whati, ka patua e rau. Ka-mau a Te Huhunu. Ka ki ate a Te Huhunu kia ora ia. "E kore koe e ora, kai te ora ano to tatou matua, ka hapa te mara e ahau." Ka kite iho te wahine ra e patua atu ana te iwi, ka hui hui i nga wahine o te pa kia kotahi whare. I te horo nga o te pa kua kite te kai-patu kua tapu i nga wahine, kahore i pa te ringa, kua huna nga tangata o tera iwi ka ngaro.

Muri iho ka whaka-whiti mai Te Uri-o-Hau ki tenei taha o Kaipara ki te takahi i nga kai o Ngitu o Te Kawau. Ka mate ko Haumoewharangi—he mea kohuru. Ka mahue a Haumoewharangi raua ko to tama-hine ko Rongo-te-ipo. Kahore he waka hei uta i ana kai. Ka haere i uta ka kite nga iwi ra ko Haumoewharangi. Ka puta te pa kiwaho patua iho a Haumoewharangi. Ka kite a Te Uri-o-Hau kua mate, ka hoki mai te iwi ra ka tauria te pa. Ka horo ko Ngitu. E toru nga pa i te ra kotahi, ka huna tera iwi, ka mate. Ka whaka-tika Ngati-Whatua Te Taou; whawhaitia nga tangata o Ngaiwi me Te Kawerau. Nga iwi o tenei taha o Kaipara ka mate. Katahi ka mahue tera taha—ka utaina mai ki nga waka e rua, ko "Te Potae-o-Wahieroa," ko "Te Wharau." Ko nga waka enei i tangohia ai Kaipara. Ka tika tonu mai, u rawa mai ki Awaroa. Ko te rironga tena o te whenua.

Ka noho tuturu Te Taou ki te Makiri. Kahore he whawhai a Te Waiohua ki Te Taou i tera takiwa. Moe noa a Toukararai ia Hukatere ka puta ki waho ko Tuperiri. No Ngaiwi, no Te Waiohua no Nga-oho, a Toukararai; no Te Tao-u a Hukatere. Kaumatua noa a Tuperiri, whanau noa ana tamariki, ko te kohuru i te Waituoro. Ka tahuri mai ano taua iwi Te Wai-o-Hua ki te kohuru iaia-kahore i mau-i rere a Tuperiri.

Muri iho ka utua mai Te Tao-u, he awatea horo katoa ko Tauoma. Ka utua e Te Wai-o-Hua he parekura-o-ka, mate ko Te Huru ko Te Kaura. Ka whaka-tauki atu a Kiwi kia Waha-akiaki. "Kia penei, to kouma apopo e iri ana i te pohutukawa i Kai-arero." Ka whakahokia e Waha-akiaki. "Kia penei, to kouma e iri ana i te puriri i Maunga-a-Ngu." Ka ki atu a Kiwi: "Ma Rehua-i-te-Rangi ra pea e mea kia mate a Kiwi-ae, ka mate." Ka hoki mai a Kiwi kōkonei. Ka utua mai e Waha-akiaki, ka ahu ki Awhitu, ko tahi te pa ka horo ko Tarataua, ka hoki mai. Ka rongo a Kiwi ko tona hoa riri tera ko Waha-akiaki, ka tukua nga karere ki nga pa katoa nei. Kapi ana te moana, haere ana i uta, i te tini o Nga-iwi hei aru i a Waha-akiaki raua ko Te Waitaheke Eono-te-kau o Waha-akiaki.

na, he toa anake. Haere marire ana, ka tata, ka mea te nuinga kia whaka-hokia. Ka mea Waha-akiaki. "Tai hoa, kia tata tonu." E whai ana nga mano-tini-o te Wai-o-Hua. Na, ka tata tonu, katahi ka tahuri. Toko-rua nga mataika, ka puta te tehi tokorua, ka tokowha. Heoi ano, kua whati; ka patua haeretia, taenoa ki katahi ki te one. Ka puta a Kiwi, ka puta a Waha-akiaki. Te patu a Kiwi kia Waha-akiaki, ka karohia ake, ka hemo. Tahu ano patu a Waha-akiaki, ka hinga ko Kiwi, katahi ka patua, Tukua atu kia whati. Ka kotikotia a Kiwi, e noho ana tana atua a Rehua, he ngarara. Horomia ake taua atua, ko te tangata nana i horo, mate ake. Ko te kouma o Kiwi i mauria ki te puriri i Maunga-a-Nguru hei whaka-rite mo ta raua korero. Muri iho ka hokia mai, ma Waitemata mai ko tahi waka, e toru-te-kau tangata ki runga ki te waka. He mea takoto nga tangata ki roto o te waka, tokorua nga tangata i hoea-mai ai te waka. Ka kite tenei pa a Taura-rua, ka mea he waka tapahi harakeke. Ka tata ki Kohimaramara, ka puta nga tangata o te pa ra ki te matakitaki. Ka whaka-uria ki uta te waka. Te ohonga o te taua i runga i te waka ra, ka patua, ka horo, ko Kohimaramara; haere tonu mai Orakei, horo katoa. Ao ake te ra, ko Taurarua, ka Maungaheke—ka haere katoa mai Ngati-Whatua i te patu i nga tangata o te whenua o Tamaki, ka ngaro. Ko nga ranganga ka hui ki Mangere, ka tahi ka whaka-tika mai a Tuperiri me ana taua, horo katoa ko Mangere. Ko te pa whaka-mutunga tenei—ka mutu tonu ake te whawhai. Noho tonu iho Te Tao-u me Tuperiri ki tana whenua ki Tamaki. Ka mutu.

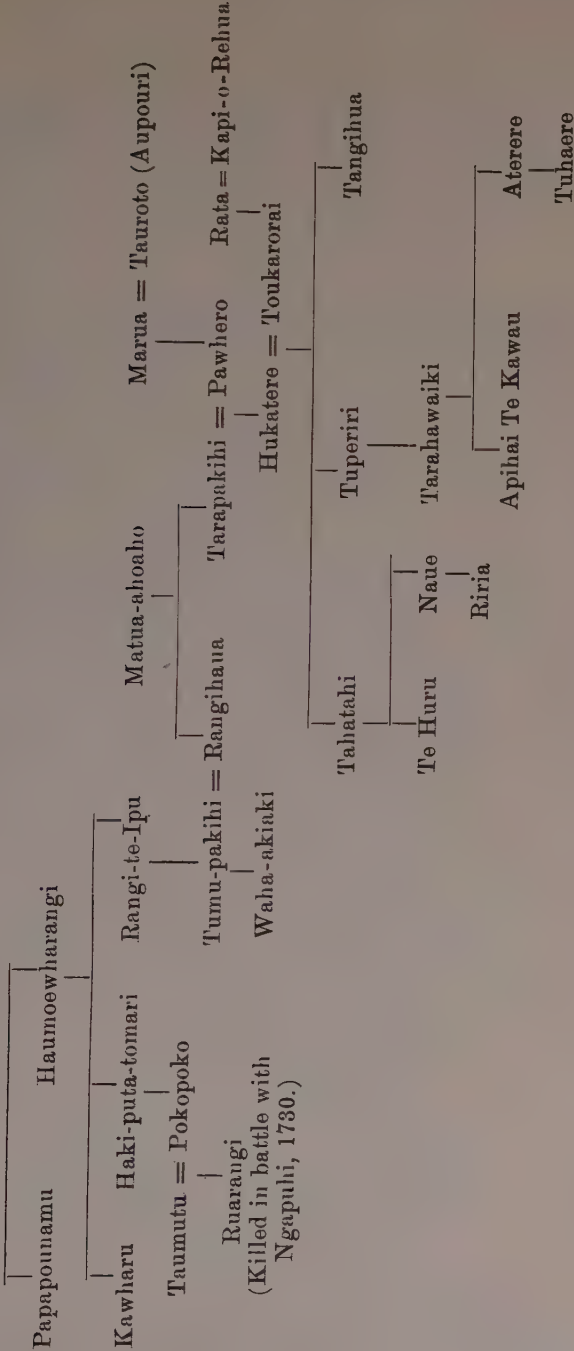
#### NOTES.

1. *Ngati-Whatua*: Whatua is said to have been an immigrant by the Taki-mu canoe—another account says that he came from Hawaiki by magical powers.
2. *Te Tao-u*: From the incident as mentioned in the narrative.
3. *Uri-o-Hau*: The issue of Hau-moe-wharangi.
4. *Nga-Ririki*: Sometimes called Nga-Riki.
5. *Te Roroa*: So called from an ancestor of that name.
6. *Tutaki*: Ngai-Tutaki.
7. *Uwhi*: A kind of yam (?), now perhaps extinct in New Zealand. Probably identical with the *uwhi-kaho*, said to have been brought to New Zealand in the Horo-uta canoe (*vide* Williams' article "Names of Kumara," Journal, Vol. I., p. 144).
8. *Roro*: Kumara root made into a pulp, and preserved for winter use.
9. *Kao*: Kumaras steamed, then dried for winter food, packed in baskets.
10. Probably proverbs—significance now quite forgotten by Ngati-Whatua.
11. This is similar to many incidents of a like kind in Maori Warfare. (*Vide* Journal, Vol. VI., Supplement, p. 87, describing the battle at Paruroa.)
12. *Vide* Journal, Vol. VIII., p. 244, where a like incident took place at the fall of Mokoia pa, Rotorua; the heroine on that occasion being Te Ao-kapungu.
13. This was at Big Muddy Creek (Paru-roa) on the Manukau.

## SOME PLACE NAMES AND THEIR LOCALITIES.

- Awbitu (Standing embraced). South Manukau Heads.
- Kai-arero (Eat the tongue) a locality on Northern slope of One Tree Hill Epsom, where grew this historic Christmas tree.
- Maunga-a-Ngu. Upper Township of Helensville (Ngu's mountain). This Puriri grew near the site of the Anglican Church there.
- Maunga-hekea. "Little Rangitoto," Remuera (= the Hill slope).
- Maunganui (Bluff) on West Coast.
- Motu-Wheteke. In the Wairoa River, South of Te Kopuru.
- Ngitu (Standing firm). Inside South Kaipara Head, North of Wai-herunga.
- Pouto. Inside of Kaipara, North Heads.
- Ripiro (The deep blue sea). A general name for the beach extending from Mongonui Bluff, to North Kaipara Heads.
- Tara-taua. South Manukau Heads.
- Tauoma. In the Tamaki West District. Te Tau-o-Ma-tahuri-para (The Spur or ridge of that ancient ancestor—where he was killed by a war-party).
- Taura-rua. Parnell Point (Waitemata) means the "two rope bindings."
- Te Awaroa. Helensville River (= Long River).
- Te Kawanu. Just south of Ngitu.
- Te Makiri. Near Helensville South Station.
- Te Wai-tuoro. (The creek of the "tuoro," a fabulous man-eating eel-like creature) situate south of Helensville.
- Wai-herunga. "Water of the hair combing." Inside South Kaipara Head.
- Wai-kara. On the West Coast (just north of the Maunganui Bluff).

PEDIGREE AS GIVEN BY TUHAERE.



# THE STORY OF NIUĒ.

## GENESIS OF A SOUTH SEA ISLAND.

BY JAMES COWAN.

THIS traditional account of NiuĒ Fekai, known also as Savage Island, the largest and most populous South Pacific island—with the exception of the mandated territory of Samoa—under New Zealand flag, is translated from a manuscript narrative written for me in 1901 by John Lupo, an old Samoan Chief, who had settled on NiuĒ in the sixties as a mission teacher. Lupo's story, stripped of its outer husk of poetic fable, is the epitomized life-history of a South Sea isle, following the coral isle up through all the ages from the time when it was a bare bank of coral and sand, until it became clothed with vegetation, and peopled by the far-roving brown navigators of Polynesia. The combination of the widespread Maui fishing story with the immeasurably more ancient myth of the separation of heaven and earth, is particularly interesting. Lupo's story is as follows:—

“In the beginning this island now called NiuĒ was nothing but coral rock (*he punga*). There came a god, an *aitu*, from the south, a god who sailed to and fro on the face of the waters. He looked down here and saw far below on the ocean the white *punga* rock. He let down his hook, and hauled the *punga* up to the surface, and lo! there stood an island. At this time the heavens hung low so that they touched the land. Then that spirit god, whose name was Maui, stood on the solid earth and forced away and propped up the leaning sky (*Langi*), chanting as he did so his lifting song:—

*Tokotoko e langi, tō-ō-ē!*

*Tokona e langi, tō-ō-ē!*

*Tokotoko e langi, tō-ō-ē!*

*Tokona e langi, tō-ō-ē!*

(Lift up, O Sky! Heave away!

Be thou propped up, O Sky!

Lift up O Sky! Heave away!

Be thou propped up.)

“And at the word *Langi* the Sky was heaved forth and up from the face of the earth to remain on high.



"The first name given to this island was Motu-tofua. The first mortals who dwelt on it were two people named Fao and Hoanaki (Huanaki). It is said that they came from a land called Tulia, from below (i.e., from leeward from the west, the direction of Tonga.) There was little food; no coconuts or yams, or breadfruit were there to furnish food for man. Naught could be seen but the wild trees, the *nonu*, the *patu-luku*, the *muka-lē* and the *lafā*. No pleasant foods grew there. And man increased on the island. And the land was hungry.

#### HOW NIUE GOT ITS COCONUTS.

"And now Fao and Hoanaki put out to sea in their canoe and sought for food for their starving home. They wandered to and fro over the face of the ocean. At last they reached the island of Tutuila, in Samoa. There the people gave them coconuts (*niu*) to plant, and they returned with them and set them for food, and that was how this island came to be covered with coconut palms, and came to be called Niu-ē.

"In those times the people of this island did not possess such fine clothes as they do now. Their garments were made from the bark of trees (*kili-akau*). They selected the cloth-trees and stripped off the soft bark and prepared it and made aprons and waist-garments of it; the *malo* for the men and the *felevehi* for the women.

"The strong arm ruled the land. The mighty man in battle and the brave—how the people feared him! And the strongest warriors had the most wives. There was no King or Government as now, in those days, early days of darkness (*vaha-pouli*).

"When a man died on this island of Niuē in former times his body was thrown into a cavern in the rocks. A sick or weak or cowardly person was not suffered to live; he was thrown into the sea or cast into a lonely cave to die; he was not buried.

"There came from the direction of Tonga some ocean sailing-  
canoes crowded with men. The islanders dug great pits, as large as  
canoes, on the sea-cliffs, and fought the invaders, and many were  
slain. Then the god of the island, an *aitu* whose name was Langeiki,  
ruled that the slaying should cease, and that all the rest of the  
invaders should be spared.

"There were two god-like men of this island called Maui-motua  
and Maui-tama (Maui father and son). They it was who first caused  
fire to be kindled on the land, so that the people might have fire for  
ever afterwards.

#### THE GODS OF THE FAMINE.

"There were certain spirits, or demon-gods, on this island; their  
names were Futimotu, Futifonua, and Alelo-loa ('Long Tongue').  
They caused the land to become hungry (i.e., there was a famine).

There were only left the wild-fruits and the birds to eat, for in those days Niuē did not possess, as now, pigs and dogs and fowls and cats (*puaka mo e kuli, moa, pusi*). Besides the wild tree-foods—for the usual food-plants did not bear—there were only the flying birds. The people made darts (*kaufana*) out of the *kaho* cane, and killed the wood-birds. There were not many pigeons, but other birds abounded. But, besides, there were fish. The islanders made hooks out of the *maile* wood and caught the sea-fishes therewith.

“The demon Alelo-loa lived on the point Sepa (Tepa, near Avatele, in the S.W. part of the island). The other two demon-gods dwelt on a high headland which stood out in the sea-spray. It was they who laid waste the fruits and destroyed the food of the island. They pulled up the *talo*, the *ufi* (yams), and the *futi* (bananas), and fed with them the ever-hungry ‘Long Tongue.’ At last another god, called Tangaloa-motumotu, who dwelt at the place Tamakautonga, told the people the cause of the famine, how the evil gods were spoiling the lands of Niuē, and it was Tangaloa who caused the famine to cease. At this time lived the high chief (*iki*) named Foufou, and (through him) the rain came and fell upon the famished land, and there was food in plenty.

“There are many tales told by the people of Niuē concerning their origin, but the truth is that they do not really know from what part they came. All we know for certain is that many generations of men have lived and died on this island.

#### THE MISSION SHIPS.

“And now, in the later times, there came the mission ships (*vaka-lotu*) and the white men (*papalangi*). The ‘John Williams’ sailed up to Tavahihi and to Falekula, but the islanders gathered on the cliffs and beaches, and chased the mission ship away. Before this, however, a Niuē man named Nukai had gone away to Samoa. There he learned the religion of the *papalangi*, and he brought it back with him to Niuē in the mission ship when she made another cruise. This time the ship landed Nukai, and he became a teacher, and so the worship of the white man’s God began.

“When the people saw what grand things the *papalangi* had in their ship—the axes, the fish-hooks, the soft cloth—they were crazy to get them. At that time the only axes the Niuē men had were those made of black stone (*maka-uli*) and of the big clam-shells (*ngati-ngenge*), and they desired above everything the sharp hatchets of the white man. They were very anxious to become Christians, because then they would obtain teachers, sharp axes and knives and cloth. And peace ruled over this island, where once fighting and man-slaying continually prevailed.”

## THE MAN-STEALING SHIPS.

Lupo, in his native MS., goes on to give a simple but vivid account of the cruel piratical deeds of 1862-63, when Peruvian armed slaving ships brutally kidnapped a large number of Niueans and natives of other islands in the South Pacific, and took them away to Callao, to work as slaves on the plantations, and in the mines, and on the guano fields of the Chincha Islands:—

“Many years ago there came two thief-ships from South America, from Kalio (Callao) and stole men from our island—the first stole fifty men and the second forty. On this second ship were enticed a number of the men of Avatele. One of them was named Taole, the son of Hengotule (the blind chief of Avatele) and his adventures I will relate. The men paddled out to the ship in their canoes, but when they got on board they were thrust down into the dark hold and the hatches were fastened on them. At Mutalau also this ship stole men. The prisoners in the hold became wild with fear, and they chopped away at the fastenings, and a number of them dashed up on deck. The guards ran at them with axes and cut some of them down and drove them back below. But some of the stolen men jumped to the ship's side and leaped overboard and swam to the shore, and they told the people how that the ship was a craft which stole men.

“The ship sailed away off northward till she passed out of sight, and the loud cries of the bereaved ones ashore arose in the villages. As for the prisoners down in the dark hold of the slave ships, they wept and wailed aloud when they found that they were carried off, and lamented with streaming tears their lost home.

“The ship went to Tokelau Islands (north of Samoa) and captured more men there, and then sailed away eastwards for many days till at last a great land was reached, and the anchor was dropped in the harbour of Callao. On the voyage there was a terrible sickness among the island men, and many of them died and were thrown into the sea.

“At Callao, Taole and his brother and all the other men were sold to the people on shore, who set them to work, some at digging out guano on the islands. They worked every day, every day. They got no pay. They were worked till they nearly died. Guards watched them continually. Taole and his brother were set to work in Callao. They worked near the roadway. After a long time, one day a ship came in—an American whale-ship. Her sailors were Pacific Islanders, from Oahu (in the Hawaiian Islands).

“Taole found an opportunity to speak to some of the Kanakas when they came on shore, and told them that he was a man of Ninē, who had been stolen away by the slave ship. He begged the captain to take him away, and the captain consented to do so.

“A plan of escape was arranged between the slave and the sailors. He changed his clothes for a sailor's garments and hat, which were

brought on shore for him. He told his fellow prisoners what he was going to do, and they eagerly watched, though at the same time not letting the guards suspect anything. When he had put on the clothes of a sailor he walked boldly down to the beach with the whaler's men.

"The guards were watching, but they thought he was one of the crew. He got to the beach and leaped eagerly into the boat, and the crew dashed their oars into the water, and pulled quickly away.

"Just then the guards discovered that Taole had disappeared and they ran to the beach, shouting, but the prisoner was free! The ship (*vaka-hoka-ika* = whaleship, literally "fish-spearing ship"), meanwhile, was all ready for sea; the sails were hoisted, and immediately the boat reached her she was off for the open ocean. A ship was sent after the whaler to get Taole back, but Taole's ship sailed very fast away from the land and he was never caught.

"Taole returned safely to his home on Niuē after many wanderings. The whaler took him up north to a very cold place of frost and ice, and he was like to die. Then she went to Honolulu, where Taole left her. At Honolulu he shipped for one of Mr. Arundel's guano islands, where other Niuē men were at work, and then a vessel took him, with other Niuēans back to Niuē. He was the only one of the stolen people who ever returned to Niuē from Callao."

#### NOTES.

The foregoing is the principal part of Lupo's interesting narrative. It was written at Avatele village, Niuē, in July-August, 1901. Lupo uses some Samoan words in the original; in fact a considerable number of Tongan and Samoan words have entered into common use on Niuē.

Like other Samoans and Niuēans, Lupo used the "g" for the "ng" sound. Wherever this occurs I have written it as it should be written, "ng." The use of the arbitrary "g" for the "nga" sound is a great disfigurement in these written tongues, and is of course very misleading to those unacquainted with the languages. Our first missionary lexicographers of Maori were fortunately more accurate. The omission of the "n" in such words as "Pangopango" is responsible for atrocious mispronunciation. Strangers naturally pronounce "Pagopago" as "Pay-go-pay-go," and so with other words in which the sound is incorrectly written. When writing Samoan and other words, I prefer to use the Maori phonetic system of spelling, which should I think be applied to Polynesian languages generally. There is no sound reason why we should continue to follow the ugly fashion set by the early mission translators who wrote "Tonga" down as "Toga."

The best account of Niuē yet written is the late Mr. S. Percy Smith's excellent book "*Niuē Fekai (or Savage Island) and Its People*" (Polynesian Society, 1903). It should be consulted in conjunction with this brief narrative. Lupo's version of Maui's "lifting-song" for raising the heavens aloft is one of the items not given in Mr. Smith's book, and his account of the first introduction of coconuts into Niuē is somewhat different, although the place of origin—the island of Tutuila—is the same in both stories.

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## OBITUARY.

WE beg to tender the sympathy of the Council and Members of the Society to Roa Manunui and other members of the family, on the death of her father, H. T. Whatahoro, well known to students of Maori lore through the medium of Vols. III. and IV. of the *Memoirs of the Polynesian Society*—(See also Vols. XXII.-XXIV. of *Polynesian Journal*). In his introductory remarks to "*The Lore of the Whare-Wānanga*" (Vol. III. of *Memoirs*), the late Mr. Percy Smith dwells on the obligation students of Maori lore owe to H. T. Whatahoro in his having recorded, in the late fifties of the last century, with the help of Aporo Te Kūmeroa, the ancient record, as recited by the two learned priests Te Mataorohanga and Nepia Pohuhu, and in part now chronicled in the *Journal* and *Memoirs of the Polynesian Society*. Te Whatahoro was engaged, off and on, for some years in recording to the dictation of these two learned men the ancient beliefs, history, etc. of the Maori people. This information had up to within comparatively recently been considered by the tribe to be of too sacred a nature to be disclosed to Europeans, and for over fifty years these records were carefully preserved by Te Whatahoro, but copies were later deposited in the Dominion Museum, Wellington. It is now the intention of the Board of Ethnological Research to have these printed in the full Maori text to place them beyond the risk of loss by fire or other accident.

H. T. Whatahoro was for some years a Corresponding Member of the Society. For fuller details as to our late Member's work, and a striking likeness of "*The Tribe*," we refer our readers to Vol. III. of the *Memoirs*.



## THE TRADITIONAL ANCHOR (*PUNGA*) OF THE TOKOMARU CANOE.

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THE following notes and sketches of the anchor of the Tokomaru Canoe, of the great migration, were received by the late Mr. Percy Smith in March 1894, from the late Mr. John Skinner, at that time carrying out surveys in the Mokau-Mohakatino District, North Taranaki. As the anchor has now disappeared, stolen or planted, it is considered advisable to place on record the only accurate description, measurements, etc., made of this most interesting relic, brought to New Zealand, according to firmly grounded tradition, from the Central Pacific in the great migration of the Fourteenth Century, and around which have gathered many myths as the generations passed.

Mr. Skinner in his letter to Mr. Smith, quoted above, says:—"This stone, a sketch of which I attach, is that what the old natives of Mokau and Mohakatino declare was the anchor of the original Tokomaru canoe. The stone measures two feet in height by one foot five inches in width, its greatest girth being five feet eleven inches, and around the base four feet six inches. Its weight I estimate as about three hundred weight—336 lbs.

About eight inches from the top and close to one side, as shown in sketch, there is a hole bored to receive the rope, or cable. This hole, which pierces the upper part of the anchor, is about six inches long by one inch in diameter. This hole and parts of the surface of stone show marks of chipping, and general indications do not point to much use. The anchor now stands about two hundred yards from the Mohakatino and about the same distance from the sea on elevated ground, and rests against a very large cabbage tree. It has evidently been placed in this position at no very distant date, carried here so my Maori guide informed me, by Tupoki, a warrior chief of the Ngati-Tama tribe, who was killed in the first quarter of the Nineteenth Century. My guide showed me this relic of ancient Maoridom under considerable pressure, as the stone is strictly *tapu*, and held in great veneration. I could get little if any details about the stone from this native, he being of the Ngati-Maniapoto tribe, and referred me to the original owners of the land—the Ngati-Tama. Beyond the statement given above I have been unable to gather any further information. I would suggest, however, that as Manuia and his people remained for some time, with the original folk they found at Mohakatino, the *tangata-whenua*, and having cultivated the land and built himself a



ANCHOR OF TOKOMARU CANOE,



"POUTAMA."

great house called Mare-roto-hia, it is possible the canoe, Tokomaru, was dismantled, and when they eventually journeyed to South Taranaki they proceeded by land, leaving the dismantled canoe and its anchor at Mohakatino. The small sample of stone I send, taken from the anchor, is quite different to any found in Taranaki."

By the same letter as that giving information about the anchor of Tokomaru, Mr. Skinner forwarded a second sketch outlining a rock formation situated on a low cliff at the south entrance of the Mohakatino river, and which his native guide informed him represented Poutama a celebrated ancestor of the Ngati-Tama people who held and occupied the country from the Mohakatino southwards for very many generations prior to 1832. There are a number of these mythical petrified ancestors of the Maori people scattered up and down New Zealand.

The name of Poutama has been retained as the designation of the block of country lying between the Mohakatino and the Kawanui to the south. I am of opinion, however, that the older tradition is, that, Poutama turned to stone can only be seen at extremely low water, and somewhat to the south of the figure here shown. Latter generations have apparently adapted the legend of the petrification of Poutama to this rather striking likeness of a human head and shoulders, located as it is in proximity to the home of this famous old chief.

For the legends attached to Poutama see Volumes XVI. and XVII. of this Journal, pages 125 and 7 respectively. Also pp. 6 and 112 of *The History of the Taranaki Coast.*"

EDITOR.

## THE AUSTRIC LANGUAGES.

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THE first properly equipped philologist to attack the problem of the continental relationships of the Polynesian and other Oceanic languages appears to have been Pater W. Schmidt, the famous Austrian anthropologist, editor of the anthropological journal *Anthropos*. Schmidt published his views in 1906 in his book *Die Mon-Khmer Völker* in which he suggested the following classification :—

Austrie	{	Austro-asiatic	{	Munda
				Mon-Khmer
		Austronesian	{	Malagasy
				Indonesian (Malay, etc.)
				Micronesian
				Melanesian
				Polynesian

Schmidt's classification appears to have been accepted by all subsequent writers. Thus, in Volume I. of the "Cambridge History of India" which has just appeared, E. J. Rapson, Professor of Sanskrit in the University of Cambridge, has the following (p. 48) :—

"In the Santal Parganas and the Chota Nagpur Division, hills and forests have preserved a large group of primitive tribes, some of whom continue to speak dialects of the oldest form of language known in India. It is here that we find the Munda languages, which, like the Mon-Khmer languages of Assam and Burma, are surviving representatives of the Austrie family of speech, the most widely diffused on earth. It has been traced 'from Easter Island in the east to Madagascar in the west, and from New Zealand in the south to the Punjab in the north.' (*Census Report*, 1911, I., p. 324.) The Munda languages are scattered far and wide. They are found not only in the Santal Parganas and Chota Nagpur, but also in the Mahadeo Hills of the Central Provinces, and in the northern districts of the Madras Presidency; and they form the basis of a number of mixed languages which make a chain along the Himalayan fringe from the Punjab to Bengal. The Mon-Khmer languages are similarly dispersed. They survive in the Khasi Hills of Assam, in certain hilly tracts of Upper Burma, in the coastal regions of the Gulf of Martaban in Lower Burma, in the Nicobar Islands, and in some parts of the Malay Peninsula.

"Thus Austrie languages, which still flourish in Annam and Cambodia, remain in India and Burma as islands of speech to preserve the record of a far-distant period when Northern India (possibly Southern India also) and Farther India belonged to the same linguistic area. And there is some evidence that they shared the same culture in neolithic times; for the 'chisel-shaped, high-shouldered celts' are specially characteristic of these regions." [Note: At page 613, Sir J. H. Marshall says: "Among neolithic implements of non-European types found in India the most noteworthy is a class of curious chisel-shaped, high-shouldered celts which are found in Burma, Assam, and Chota Nagpur, and which appear to have been manufactured by the ancestors of the present Mon-Khmer stock. Similar instruments occur also in Indo-China and the Malay Peninsula, where they seem to have been produced, not by the aboriginal tribes of the interior, but by later invaders who were in a more advanced state of civilisation."] "There



can be little doubt that the Indian and Burmese tribes who spoke Austric languages are descended from the neolithic peoples who made these celts. We may regard them as the earliest population concerning which we have any definite information. Other tribes may have an equal claim to antiquity; but they have abandoned their ancestral speech and adopted that of their more recent and more progressive neighbours.

Invasions from the east, some of them historical, have brought into the ancient domain of Austric speech languages belonging to two branches of the Tibeto-Chinese family. . . . In the same way the Austric languages have been submerged by successive waves of Dravidian and Indo-European from the west and north-west."

The linking by Professor Rapson and Sir J. H. Marshall of the Austric languages with the "chisel-shaped, high-shouldered celt" is a matter of great interest to students of Polynesian culture for it suggests the probability that the tanged and shouldered stone adze of Polynesia has its origin in the tanged and shouldered stone adze found in those regions of South-east Asia where the Austric languages are spoken. S. H. Peal long ago pointed out that those regions shared with the Oceanic area a number of conspicuous culture elements such as head-hunting and the preservation of human heads, men's club-houses, and the slit wooden gong.

H. D. SKINNER.

## REVIEW.

"The Racial History of Man," by Roland B. Dixon.  
Chas. Scribners and Sons, London and New York, 1923.

PROFESSOR Dixon has contributed an invaluable addition to the works on the history and distribution of the races of mankind. Based on physical criteria, it forms the most outstanding study in physical anthropology since the publication of Riply's "Races of Europe." As the data is derived from an analysis of all the published cranial material, the work is a monument of patient industry.

The original feature of the work is Professor Dixon's method of arriving at his results. He correlated the cranial height and nasal indices. With the three classes into which each index is divided, he had twenty-seven possible combinations. The medium classes of each index were treated by him as the result of the blending of the classes above and below them. By treating the combinations containing a medium factor, Professor Dixon arrived at eight fundamental 'types' (combinations without medium classes) and nineteen 'blends.' Taking it for granted that Mendelian inheritance of metrical factors had not been proved in the case of man, he divided the 'blends' amongst the 'types' that he regarded as having given rise to them. By treating the cranial data in this manner, he not only worked out what 'types' were present in a given people but by the percentage of 'types' showed their relative importance in the population. He carefully stresses the point that 'type' is not synonymous with 'race' but designates in each case a particular combination of three selected criteria and nothing more. To his 'types,' he has given names and their presence corresponds in a startling way with the distribution of 'race.' In many cases where they do not, there seems as much doubt as to whether Professor Dixon is in error through insufficient data as orthodox opinion is correct.

Space prevents us from going into details, but we are especially interested in the Author's conclusions with regard to Polynesia. Some little time ago, Professor Dixon startled us with a new theory of 'Polynesian origins.' He maintained from the correlation of the three selected cranial indices, that the basic type amongst the Polynesians was a short, broad-headed, broad-nosed 'type' that he associated with the Negrittos. From more extensive data, he doubts the affinity of this type with the Negrittos and has renamed it Palæ-Alpine. At the same time, he finds that it does not play the important part that he formerly considered.

Taking Polynesia and New Zealand as a triangle, Professor Dixon finds a different type predominant at the remoter areas or points of the triangle. In the Northern islands of the Hawaii Group he finds his Palæ-Alpine type predominant. In Easter Island, the 'Melanesian,' a combination of long-headed, broad-nosed 'types' with high and low skulls, is in the majority. In New Zealand, the 'Caspian type,' with long high heads and narrow noses, is the most dominant. Associated with it is the 'Mediterranean type,' with a lower skull. From this distribution in the remoter areas and from the presence of other types he has put forward a theory of the peopling of Polynesia.

The first wave consisted mainly of the 'Melanesian type.' They were composed of a blending of Proto-Negroid and Proto-Australoid elements which developed in Melanesia. They passed through Samoa, Tonga, Cook, Society, Tuamotu, and by "lucky chance" reached Easter Island.

Next came the 'Caspian type' with minorities of other long headed types. They probably came by way of the Ellice and Gilbert Groups. They followed

East, and a small group reached Easter Island. Neither of these two waves reached Hawaii in the North or New Zealand in the South.

As late as the early part of the Christian Era, by way probably of Micronesia, came a wave composed mainly of the broad-headed, narrow-nosed 'Alpine type.' They poured into Western Polynesia and moved East through Manihiki and Tongarewa to the Marquesas. In the Cook, Society and Tuamotu Groups they never became dominant. They spread North by way of Malden, Christmas and Fanning Islands to Hawaii, where they found the Palæ-Alpines already in occupation. From Tonga, they came to New Zealand bringing other elements by intermixture in Western Polynesia. Later some spread to Chatham Islands.

In the thirteenth and fourteenth centuries, the New Zealand population was profoundly modified by waves of long-headed people from Eastern Polynesia. Professor Dixon associates the Caspian type with stone work and the Alpine with the people of the "long migrations." The elusive Caucasian element in the Polynesians, mentioned by so many writers, he associates with the Caspian-Mediterranean types found mostly in New Zealand.

No matter how we may agree or disagree with Professor Dixon's interpretation of the Polynesian cranial material, we must admit that he has obtained more results by his method than have so far been put on record. The late Mr. Percy Smith would never admit the possibility of Melanesians making long sea voyages. To account for Melanesian elements in the composition of the Polynesians, he, at the most, admitted the possibility of Melanesian slaves or crews under Polynesian commanders. Professor Dixon, however, states that the percentage of Melanesian elements in the Easter Island material is so high that it can only be accounted for by a distinct wave, consisting mainly of the Melanesian type having reached that remote area.

Meanwhile we await the results of Dr. L. R. Sullivan's analysis of the vastly increased amount of data on the living, provided by the Bayard Dominick Expeditions that have been working through the Somoa, Tonga, Society, Tuamotu, Marquesas and Austral groups. The additional living material collected in New Zealand, contains inter-tribal data that differs somewhat from the cranial material to which Professor Dixon had access.

Though details have not been published, there seem to be indications that an early wave containing long-headed elements came from Eastern Polynesia before or shortly after a broad-headed element from Western Polynesia. This might well be a section of Professor Dixon's second wave consisting mainly of the Caspian type, that from his available data, he considered never reached New Zealand.

If Professor Dixon's method of treating 'blends' survives the criticism of the biometricians, he has provided a most useful means for isolating the various elements that enter into composition of the mixed races of the world. In that case, would it not be advisable to eliminate 'blends' by dividing each index into two classes when analysing data. As a case in point, it seems preferable to divide the cephalic index into long heads and broad heads at 77.4 or 77.5 than to give fifty per cent. of the medium class to each of the other two when one or other predominates in the series under consideration.

If the method is not accepted, Professor Dixon has yet given anthropologists more definite and tangible results than have so far been arrived at. These results will have to be considered whether further data goes in the direction of opposing, confirming or modifying them.

Professor Dixon is an old member of the Polynesian Society. To his industry, erudition and honesty of purpose we tender our mode of appreciation.

P. H. BUCK, M.D.

## POLYNESIAN ORIGINS.

### Results of the Bayard Dominick Expedition.

THE first comprehensive attack on a large scale on the problem of Polynesian origins is that of the Bayard Dominick Expedition. The general conclusions reached by members of the expedition are of such great interest that we make no apology for re-printing them in full from the Annual Report for 1922, of the Bernice Pauahi Bishop Museum, Honolulu.

"At the end of the year the work of the Bayard Dominick Expedition had reached the following stage: the field work had been completed; most of the collections, maps, manuscripts, photographs, and field notes had been arranged for study; three papers had been published; two papers were in press, four papers had been submitted for publication and substantial progress had been made in the preparation of six other papers.

The systematic investigation of the origin, migration, and culture of the Polynesian peoples, which constitute the program of the Bayard Dominick Expedition, was made possible by a generous gift of Bayard Dominick, Junr., of New York—funds given to Yale University and placed by the University at the disposal of Bishop Museum. During the summer of 1920 four field parties began their work—the first in Tonga, the second in the Marquesas, the third in Rurutu, Raiavai, Tubuai and Rapa of the Austral Islands, the fourth in islands of the Hawaiian group. Through co-operative arrangements with scientists of New Zealand, physical measurements of the Maori and a complete survey of the Moriori of Chatham Islands form part of the program.

In formulating the plans for the expedition, it was recognised that the origin and migrations of a people constitute a problem made up of many diverse elements—a problem which involves contributions not only from physical anthropology, material culture, archaeology, philology and legends, but also from economic botany, geography and zoology. A profitable search for Polynesian origins obviously involves fundamental research in two distinct fields: (1) the source of the physical racial characteristics which have combined to make the different Polynesian types; (2) the source of the original elements in the customs, habits and beliefs—in a word, the culture of the Polynesians. The problem of origin approaches solution to the extent that original physical characteristics may be correlated with original cultural elements.

Although the results obtained by the members of the Bayard Dominick Expedition have not as yet been subjected to critical analysis and comparison, some interesting general conclusions have been reached.

The Polynesian population consists of at least two basic elements and the failure to recognise them appears to account for the wide diversity of opinion regarding origin and affinities of the Pacific races.

Type A, which may be considered Polynesian proper, is a Caucasoid element with physical characteristics intermediate between some Caucasians and some Mongols. It may prove to be a very primitive Caucasian type related to the earliest inhabitants of Micronesia, Melanesia, Indonesia, and to the Aino of Japan and to some primitive Americans. It is probably the oldest type in central and eastern Pacific and occupied all the Polynesian islands. At present it is strongest in southern Polynesia.



The characteristic features of Type A are (1) tall stature, (2) moderately long heads, (3) relatively high, narrow faces, (4) relatively high, narrow noses, (5) straight or wavy black hair of medium texture, (6) well-developed moustache and moderate beard on the chin, (7) moderate amount of hair on the body and limbs, (8) light brown skins, (9) incisor rim present occasionally, (10) femur flattened, (11) tibia flattened, (12) ulna flattened, (13) lips above average in thickness.

Type B is the Indonesian element typically developed in the region of the Celebes. It is a Mongoloid type but unlike the Malay, is strongly divergent in the direction of the Negro. Hybrids of Type A and Type B are much more Mongoloid in appearance than is either of the parental types. Type B is strongest in northern and central Polynesia.

The essential physical characteristics of Type B are: (1) shorter stature, (2) shorter heads, (3) low, broad faces, (4) low, broad noses, (5) wavier hair, (6) undeveloped beard, (7) body hair rare except on the legs, (8) darker brown skin, (9) incisor rim rare, (10), (11), (12) femur, tibia and ulna less flattened (data meager, results inferred), (13) lips well above the average in thickness.

Type A, Polynesian, and Type B, Indonesian, are not closely related in a physical sense.

A third element in the Polynesian population is characterized by extremely short heads, narrow faces, narrow noses, light skin and well developed beard and body hair. Representatives of this element have not been found in Polynesia in sufficient numbers to justify specific description. When studied in a region where it is well represented, this element may prove of sufficient importance to be recognised as Type C. This element has probably contributed some of the Caucasoid traits to the Polynesians.

There is a basic Polynesian culture for the present termed Culture "A" over which has been superposed a later culture (Culture "B"). The most important elements of Culture "A" are: (1) a rectangular house with end posts and bed space, (2) a canoe made of five parts, (3) a tanged adze, (4) cooking by means of heated stones in ground ovens, (5) the use of stone pestles for pounding food, (6) the use of wood, gourd, and coconut shell, rather than pottery, for containers, (7) skilful woodworking and carving, (8) tattooing, (9) the making of tapa, or bark cloth, (10) a characteristic relationship system, (11) the custom of adopting and betrothing children, (12) systematic agriculture and fishing, taro and potato cultures, (13) professional craftsmanship and leadership in industry, (14) tribal government of simple patriarchal communism, (15) preserving heads of enemies as trophies, and cannibalism, (16) ancestor worship, the preservation of genealogies, and the hiding of skeletal remains, (17) inspirational diviners, (18) a speculative creation mythology conceived on the principle of dualism, expressed in terms of male and female agencies. Culture "A" is distributed throughout Polynesia, but is most clearly distinguished in New Zealand and the Marquesas—marginal regions little affected by later influences.

As compared with Culture "A," Culture "B" is characterized by a higher social and religious development rather than a higher technical development, and is dominant in northern and central Polynesia. It is considered not as the culture of a race unrelated to the Polynesians, but as the culture of a second migrating wave of a people closely related to those represented by Culture "A." In addition to the elements listed for Culture "A," Culture "B" is characterized by other elements among which are: (19) the oval house, (20) wooden head rests, (21) utensils with legs, (22) organised government, (23) a rigid social classification, (24) complicated systems of land division and ownership, (25) great sacredness of chiefs and elaborate etiquette, (26) organised dancing as a social and religious institution,



(27) organized religious ceremonial and priesthood, (28) a generation cult and seasonal rites, (29) haruspication.

It is interesting to note that the basal Polynesian physical type (Type A) is universally distributed, but strongest in the south, and that the original culture (Culture "A"), also universally distributed, is clearest in the south (New Zealand) and in the east (the Marquesas). Also physical Type B is strongest in north and central Polynesia, the same region in which elements in Culture "B" are dominant. This demonstrated parallelism of racial types and cultural stratification rests on conclusions arrived at independently by members of the Museum staff working in widely separated fields with no opportunity for consultation. It is regarded as a very important contribution to the method of attack on the Polynesian problem. Another contribution is the definition of characteristics and elements belonging to the respective types and cultures—a prerequisite to comparative studies.

The archæological work of the Bayard Dominick Expedition reveals no very ancient human habitation in the central and south Pacific. For the Polynesian settlement the evidence serves to substantiate the conclusions of William Churchill, based on linguistic and cultural study. The following dates are considered reasonable estimates: A.D. 0, the first important Polynesian migratory movement; A.D. 600, second migration; and A.D. 1,000, a period of great Polynesian expansion.

As regards the sources of these racial types and cultural elements and the routes by which they came to Polynesia, the evidence in hand indicates the region of the Malay archipelago (Indonesia) and southeast Asia as that from which the Polynesian ancestors began their eastward drift. There is no evidence of definite migrations to or from the American continents.

The Bayard Dominick Expedition is the most comprehensive investigation so far made of any Pacific people; it has filled in gaps and expanded the boundaries of the knowledge of the Polynesian race. It is believed that the publications resulting from the two years of intensive study will serve as a basis for intelligent criticism of the observations and theories of previous workers and a guide for later detailed studies."

This summary of conclusions reached is of very great interest and will serve, among other useful purposes, to focus discussion within a manageable field. The most useful criticism will come, no doubt, from specialists in each of the large number of aspects of Oceanic culture. For the present, the following points may be noted: An emphatic protest must be entered against the use of the term "Indonesian" in an entirely new sense. For thirty years or more "Indonesian" has been appropriated by anthropologists (e.g. Keane, Denniker, Haddon) as the designation of a Caucasoid type, held to be widely distributed in the East Indies, from which, in the view of these anthropologists, the pure Polynesian type is derived. The transference of the term to another geographical area and its use to designate a new and contrasted physical type is as unjustifiable in the science of ethnology, as it would be in the sciences of botany or zoology.

On the cultural side students will be anxious to learn in what sense the Maori canoe can be described as built of five parts. It may be pointed out that chiefs were hedged with great sanctity in New Zealand, that utensils on legs are not uncommon there, that a complicated system of land division and ownership obtained, and that other of the elements described as typical of Culture "B" occur in New Zealand also, though perhaps in an attenuated form.

EDITOR.

# BOARD OF MAORI ETHNOLOGICAL RESEARCH.

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THE first meeting of the newly constituted Board of Maori Ethnological Research was held in the Parliamentary Buildings, Wellington, on 30th October, 1923. Members of Board present:—Judge R. N. Jones (Deputy Chairman), Hon. A. T. Ngata, Archdeacon H. W. Williams, Mr. J. Hislop, Mr. Elsdon Best, Dr. P. H. Buck, Mr. H. D. Skinner.

Judge Jones, as Deputy Chairman, took the chair. In the absence and on behalf of the Hon. the Native Minister, on important public business in the South Island, he briefly welcomed the Members of the Board, and stated that he was sure that the work to be done by the Board at this and future meetings would be for the benefit of the Maoris and their descendants, and that the publication of such matters would add greatly to the sum of human knowledge.

Judge Jones then read the appointment of members.

The regulations and sample of Certificate of Membership were laid on the table.

It was moved by Judge Jones and seconded by the Hon. Mr. Ngata:—"That Mr. H. R. H. Balneavis be the Secretary of the Board." Carried.

The minutes of the Informal Meeting held on the 30th August, 1923, were read and it was resolved:—"That the minutes just read should be approved subject to amendments which may be made at this meeting."

It was moved by the Hon. Mr. Ngata and seconded by Dr. Buck:—"That the Hon. the Native Minister be recommended to adopt the design of the seal as depicted by the sketch submitted."—Carried.

*Correspondence.*—Telegram of well-wishes to the Board from 'Taiporutu te Mapu was received.

Resolved: That the letter from Mr. J. Fleetwood in *re* Maori chants, poi dances, etc., be acknowledged with thanks, and he be encouraged in his efforts by assuring him that were others to pursue such a subject in like manner, many useful collections might be got together.

It was moved by the Hon. Mr. Ngata and seconded by Mr. Skinner:—"That the sum of £75 be paid towards the cost of printing Archdeacon Williams' "Maori Bibliography." Carried.

It was resolved on the motion of the Hon. Mr. Ngata, seconded by Mr. Skinner—"That a subsidy of £50 be paid to the 'Toa Takitini for publishing Ethnological matter on behalf of the Board in the columns of that paper every month for twelve months—such amount to be paid quarterly." Carried.

It was moved by Judge Jones and seconded by Archdeacon Williams:—"That the Polynesian Society be subsidised to the extent of £100 up to the 1st April, 1924, and of £300 thereafter for one year, to assist in the publication of its journal." Carried.

It was resolved on the motion of Archdeacon Williams, seconded by Dr. Buck: ) "That the Board offer to undertake for the Polynesian Society the publication of Mr. Elsdon Best's Memoir "The Maori."

e) "The price for the whole Memoir to be 7/6 to members of the Society, and 15/- to the public."

e) "The proceeds of the sale of the publication to be the property of the Polynesian Society for its Memoir Fund." Carried.

Resolved:—"That the Hon. Mr. Ngata, Mr. Best and the Secretary be a sub-committee, with power to act, to go into the question of estimates for the publication of "The Maori."

It was proposed by Judge Jones and seconded by Mr. Hislop:—"That the Board ask the Hon. Mr. Ngata to express to the Ngati-Porou tribe the thanks of

the Board for their proposed contribution of £250 towards the cost of publishing Mr. Best's 'The Maori,' and to request that such amount be paid to the Board's Account." Carried.

It was proposed by Archdeacon Williams and seconded by Judge Jones:—"That the Executive should have power to assist any publication up to but not exceeding £10." Carried.

It was moved by Archdeacon Williams and seconded by Mr. Hislop:—"That Mr. H. D. Skinner be asked to forward Mr. H. Beattie's Memoir to Mr. Best, and if found suitable, that publication of same should be approved as a Memoir of the Polynesian Society." Carried.

It was moved by Archdeacon Williams and seconded by Mr. Hislop:—"That a sub-committee consisting of the Hon. Sir Maui Pomare, the Hon. Mr. Ngata, Mr. Elsdon Best and Dr. Buck, with power to add to their number, be appointed for the purpose of ascertaining whether it is possible to fit out an expedition to the Pacific Islands, especially Tahiti and Raiatea." Carried.

Resolved:—"That the Board communicate with the Minister in charge of the Cook Islands Administration, and ascertain what has been done in the direction of publishing Mr. Savage's Rarotongan Dictionary."

It was moved by Archdeacon Williams and seconded by Mr. Hislop:—"That this Board desires to convey to Roa Manunui its sympathy with her and other members of the family, on the death of her father—Te Whatahoro—well known to students of Maori lore as the "Scribe." Carried.

It was moved by Judge Jones and seconded by the Hon. Mr. Ngata:—"That the Board on its first official meeting desires to express to the Hon. the Native Minister its appreciation of the help given by him in the establishment of the Board, and the sympathy he has always shown with its objects, and now places upon record the thanks of the Board." Carried.

It was moved by Mr. Hislop and seconded by the Hon. Mr. Ngata:—"That the Board's allowance to its members attending meetings be one guinea per day and transport expenses." Carried.

It was moved by Judge Jones and seconded by the Hon. Mr. Ngata:—"That the Board expresses its appreciation at the news that the Hon. Mr. Bollard has agreed to move the Maori relics from the present Museum buildings to a fire-proof building." Carried.

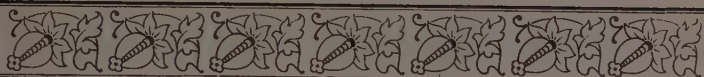
It was moved by Dr. Buck and seconded by the Hon. Mr. Ngata:—"That it should be a representation to the Government that all publication of matter connected with the Maori Race, especially Museum Bulletins, be entrusted to the Board, and that Parliamentary grants be made to the Board for the purpose." Carried.

It was moved by Judge Jones and seconded by Archdeacon Williams:—"That, subject to the approval of the Hon. Minister of Internal Affairs, the publication of Museum Bulletin No. 7 (Maori Canoes) be undertaken by the Board." Carried.

It was moved by Mr. Skinner and seconded by Archdeacon Williams:—"That the Board expresses its appreciation of the annual expeditions sent out by the Hon. the Minister of Internal Affairs for field work in connection with Maori Ethnology, which is of inestimable value in research work, and should be continued." Carried.

It was resolved on the motion of Archdeacon Williams, which was seconded by Mr. Skinner:—"That a catalogue of the Maori and Polynesian works in the Turnbull and Dominion Museum Libraries should be prepared and printed, and that it be a recommendation to the Hon. the Minister of Internal Affairs that this be done." Carried.

The meeting adjourned *sine die*.



## NOTES AND QUERIES.

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### [348] The late Dr. W. H. R. Rivers.

A committee has been formed in England to commemorate the services of the late Dr. W. H. R. Rivers to anthropology and psychology, which includes Sir Charles Sherrington, President of the Royal Society, Sir Humphrey Rolleston, President of the Royal College of Physicians, Sir James Fraser, Dr. Henry Head, Professor Elliot Smith, and Dr. C. S. Myers. The Treasurer is Dr. L. E. Shore, St. John's College, Cambridge, to whom contributions may be sent. It is intended that the proceeds of the fund shall be devoted to the promotion of those sciences in which Dr. Rivers took a special interest, but until the amount and the wishes of the contributors are known no definite decision will be reached.—*Science*.

### [349] The Story of the Kumara.

Under the above title our Corresponding Member, Mr. F. W. Christian, deals with the names of *kumara* and *yam* in the regions between India and America. (*Journal of Science and Technology*, VI., 3, p. 152.) He concludes that many Sanskrit words can be traced in the languages of the Incas of Peru and of Arauco in south Chile. The names given to the *kumara* in Indonesia are derived from the Sanskrit names for the blue, the white, and the red edible lotus-lily, which has a sweetish floury tuber, and which has long been cultivated in India together with the *taro* and the *yam*. The Sanskrit names fall under four headings: (1) *Kumad*, *kumal*, the white lotus; (2) *kumud*, the white lotus; (3) *kamal*, the red lotus; (4) *kuwara*, *kuwala*, *kuvera*, the blue edible lotus. The Polynesian forms *kuwara*, *kuawara* (Mangaii); *uala*, *iwala* (Hawaii); *kumara* (Maori); the Philippine forms *comote*, *kamote*; the Mariana *camute* or *kamute*; and Ruk *kamal* are all derived from one or other of the four Sanskrit forms. Mr. Christian's view is that navigators sailed east from Java and were carried by the North Equatorial current first to Hawaii and then to the coast of Central and South America. In Ecuador the white potato is *cumar* or *kumar*, and the same name appears in north Chili. Two other tuber names are quoted in support: *kachu* is the Inca name for the common potato. In Sanskrit *kachu* or *kachhu* is the name for the *taro* (edible taro) long cultivated in India, and is the modern Indian name for the potato. The *yam* is called *gaddu* by the Indians of Arauco. *Gandu* and *gaddu* are Sanskrit names for "bulb" or "tuber" and also for the *yam*. Compare Philippine and Mariana *gado* (*yam*), and Melanesian *gadu* (*yam*). Mr. Christian claims that a number of similar words may be linked up in South America and Indonesia. His view is that some South American food-plants were taken back to Java and thence spread through Indonesia and the Pacific. Hawaii was the first colonised of the eastern and central Polynesian groups. Thence parties pushed south and south-west to east Polynesia, Tahiti, the Cook Group, and New Zealand.



**[350] House Flies in Polynesia.**

In the B. P. Bishop Museum Annual Report for 1922 the following paragraph is quoted from a report by Mr. J. F. Illingworth, Research Associate in Entomology:—"A study of flies throws some interesting side lights upon the origin of man in Hawaii. House flies have ever been closely associated with human beings. In fact so much so that they are not found on uninhabited islands. and the United States Exploring Expedition, in 1840, reported that flies were a sure indication of the presence of natives on an island. I found that the common house fly of Hawaii was not that of Europe and the United States, as formerly supposed, but a variety of a distinctly different species, appearing along the western shores of the Pacific. Since it is known that these flies will follow man, even in small boats and since there is evidence that house flies were in Hawaii when Captain Cook arrived, one may fairly conclude that they came with the natives along their lines of migration. It is interesting to note that our evidence of the migration of these insects exactly coincides with what is now presumed to have been the line of migration of the earliest peoples reaching the shores of the Hawaiian islands.

**[351] Research in Southern Polynesia.**

In the same report the work of Mr. Stokes is noted as follows:—"John F. G. Stokes, Ethnologist, returned to Honolulu in November, after a two years' absence in the Austral Islands as a member of the Bayard Dominick Expedition. His particular field was the islands of Rapa, Rurutu, and Raivavae, where the material culture and archaeology were studied and anthropometrical data collected. Some time was also given to Tahiti, Rimatara, and islands in the eastern Tuamotus. Abstracts of selected parts of the preliminary report of Mr. Stokes follow:

In Rurutu the dialect seems phonetically to be the most emasculated among the Polynesians. The consonants 'k,' 'ng,' and the aspirates are lacking.

In Rapa the mortuary customs have some interesting features in connection with the drying of bodies. The sepulchers yielded specimens of garments, one of which, a fragment of the early Rapa dress, is in technique identical with the Maori rain cloak. The hill forts or fortified villages, analogous to the Maori *pa*, show primitive engineering features. Stone fish weirs are common and one of the old *marae* (temples) remains. The clans of former times still exist, but with much intermixture. Land is communal with the clan. The Rapa customs are interesting on account of the absence of certain Polynesian features. It is said that there were no tattooing, no awa drinking, no fish-poisoning, no mat-making, no feather-work, no pigs and no dogs. Other Polynesian characteristics but slightly developed were temples, priestcraft, veneration for chiefs, knowledge of great Polynesian heroes, and stone platforms for houses. The original dialect retained the 'k' and 'ng,' but dropped the 'h.'

Raivavae has a population of 380 and presents an appearance of great prosperity, in strong contrast with Rapa. The material culture has changed to a greater extent than elsewhere in the Austral Group. The island has a special interest on account of its archaeology. Many large stone images hewn out of red tufa remained until the decade 1890-1900, when they were cut into building blocks for a church structure. More than sixty images or fragments of images were found, the largest of which stood eight and a half feet above ground. About sixty temples were noted and it is not improbable that about one hundred of these establishments were formerly maintained. War retreats in the mountains were also found. The Raivavae genealogies indicate a common origin of the chiefs of the Austral Group. In the original dialect the Polynesian 'k' had been dropped



the 'ng' was in process of changing to 'n,' and the 'r' was pronounced as 'l,' 'gh,' or 'g'.

Physical measurements of 335 people were obtained—133 in Rurutu, 113 in Rapa, and 89 in Raivavae.

The customs of the Austral Islanders have been greatly modified through their conversion to Christianity by native missionaries from the Society Group. The latter, themselves Polynesians, imposed upon the people a Tahitian civilization partly modified by the secular teachings of the white missionaries from England. In the process, which has been under way since 1821, a complex has been formed which makes it extremely difficult to differentiate Austral Island ethnology from that of the Society Group." (See also Annual Report of the Director for 1921; Occ. Papers Vol. VIII., No. 5, pp. 206-207, 1922.)

### [352] Investigations in the Society Islands.

From the same report we take the following:—"Extensive researches in the Marquesas and the Austral Islands, and reconnaissance studies in Tahiti indicate the need of fuller knowledge of the islands lying westward. From the Society Islands in particular more precise information is needed of the physical characters of the people, of the sequence of the overlapping immigrations and the cultural differences in the native populations of various islands of the group.

To meet this need provision has been made for undertaking an ethnological survey by a party consisting of E. S. Craighill Handy, Ethnologist; Willowdean C. Handy, Associate in Polynesian Folkways; and Miss Jane Winne, Volunteer Assistant, who will devote her time to recording native music. Local field assistants will be added to the party. For comparative studies Mr. Handy will visit the islands of Upolu, Vavau, Haapai, Nukuolofa, and the Maori settlements in New Zealand.

### [353] Personal Items and Researches.

The route of the *St. George*, the vessel chartered by the Scientific Expeditionary Research Association, is laid down as follows: Via Teneriffe and Panama to the Galapagos, thence to Easter Island. Pitcairn Island, the Cook and Austral groups, Tahiti, the Paumotus, and the Marquesas. At the Marquesas, our fellow-member, Mr. J. Hornell proposes to leave the ship and travel to Fiji, Tonga, Samoa, New Caledonia, the New Hebrides, the Solomons, and thence to Sydney and New Zealand, devoting his attention principally to types of canoe and canoe-fittings, methods of fishing, shell trumpets, shell bangles, tattooing, and also to physical anthropology.

The following notes are taken from the Annual Report for 1922 of the B. P. Bishop Museum: "Robert T. Aitken, Research Associate in Ethnology, returned on August 8th from a two years' field trip in the Austral Islands as a Member of the Bayard Dominick Expedition. A few days were spent at Raivavae and brief visits were made to islands in the Society and Paumotu groups. The remainder of the time available for field work was devoted to investigations on the island of Tubuai. At the end of the year his manuscript on the ethnology of Tubuai was nearing completion.

"Forest B. H. Brown, Botanist, returned to Honolulu on December 16th, after a period of two years spent in the Marquesas and neighbouring parts of the Pacific as a member of the Bayard Dominick Expedition. His work has resulted in filling a conspicuous gap in the knowledge of Pacific flora and should lead to the preparation of a standard treatise based on his collections, which comprise 9,000 sheets of material and 395 photographs.

"Kenneth P. Emory, Assistant Ethnologist, spent the first half of the year in the preparation of a manuscript on the archaeology and ethnology of the island of Lanai. In connection with this work, field trips were made to Kaupo, Maui, and Molokai. On July 27th, Mr. Emory left Honolulu on a year's leave of absence to pursue graduate studies at Harvard University.

"Before leaving for the mainland in August, Ruth H. Greiner, Bishop Museum Fellow for 1921-1922, submitted manuscript on Polynesian design which comprises an extensive study of Hawaiian, Samoan, Tongan, and Maori decorative elements and comparisons with art as developed in other parts of Polynesia and in selected islands of Melanesia.

"The time of E. S. Craighill Handy, Ethnologist, was given largely to the preparation of manuscript resulting from his field work in the Marquesas during 1920 and 1921 as a member of the Bayard Dominick Expedition. At the close of the year his papers on 'The Native Culture of the Marquesas' and 'Rediscoveries in Polynesia' were ready for the press; and a manuscript entitled 'An Interpretive Study of the Religion of the Polynesian People' was practically finished. A course of lectures on ethnology was delivered by Mr. Handy at the University of Hawaii.

"Willowdean C. Handy, Associate in Polynesian Folkways and Volunteer Assistant with the Bayard Dominick Expedition, completed a manuscript on 'Tattooing in the Marquesas' [noted in J.P.S., Vol. XXXII., p. 99], and made considerable progress with her studies of Polynesian string figures.

"Early in April Lieut. Hans G. Hornbostel began his work as collector and has had remarkable success in obtaining specimens illustrating the material culture of the Chamorros of Guam, including hundreds of sling-stones, large numbers of adzes and chisels, hammers, pestles, whetstones, several stone vessels, knives, ornaments, fishing materials and other artifacts, as well as specimens of the massive stone capitals from the tops of pillars marking burial sites. The collection also includes over a hundred more or less complete skeletons of a people whose large stature is striking.

"Thomas G. Thrum, Associate in Hawaiian Folklore, completed the 'Geographic place-names' for the revision of Andrews' Hawaiian Dictionary. He also made a critical analysis of the forty-two manuscripts in the Poepoe collection and a translation of Kamakan's history of Kamehameha, which appeared originally in Ka Nupepa Kuakoa in 1866-71. Progress was made in a study of the star lore of the ancient Hawaiians, especially with reference to navigation."

#### OTAGO INSTITUTE: ARCHAEOLOGICAL BRANCH.

During 1920, on the initiative of Dr. D. Colquhoun, an Archaeological Section of the Otago Institute was formed, its first session being held in 1921. There was a good deal of discussion about the name which should be adopted, and none that was quite satisfactory was suggested.

"Anthropological" would have most accurately described the scope of the section, but this was rejected as unfamiliar, and likely to frighten possible members. Ultimately "Archaeological" was adopted. The section has four regular meetings in each session, one being a joint meeting with either the parent Institute or with the Dunedin branch of the Classical Association. It also secures lectures from visitors. Besides holding meetings it is building up a sectional library, and is at present engaged on an archaeological map of the southern parts of New Zealand, in which villages, fortifications, and Maori tracks will be marked, and similar data recorded. It is hoped that the section may ultimately carry out excavations on sites about Dunedin.

Attendance at sectional lectures averages about forty.



## PROCEEDINGS.

### POLYNESIAN SOCIETY.

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A MEETING of the Council was held in the Library-room on Thursday, 13th December, 1923, at 4 p.m. Present: Messrs. Skiuner (chairman), Rockel, Waller and White.

The minutes of last meeting were read and confirmed. Letters were read from the Secretary of the Maori Ethnological Research Board, stating that Mr. Elsdon Best's work "The Maori" would be printed by the Board, in Wellington, as "*Memoir No. 5*" of the Polynesian Society. The work—2 vols. of approximately 500 pages each—to be sold to the public at 15/-, and to members of the Polynesian Society for 7/6. The Chairman stated that he had accepted the Board's offer on behalf of the Society. It was proposed by Mr. Rockel, and carried, that the Chairman's action be confirmed.

The Treasurer reported that the Society's credit balance at general account was £2. It was resolved that the Secretary write to the Maori Ethnological Board requesting that the grant of £100, approved by the Board, be placed to the credit of this Society.

On the motion of Mr. White the date for holding the Annual General Meeting was fixed for Tuesday, 29th January, 1924, at 7.30 p.m. in the Library room.

New Members.—The following were proposed, seconded, and duly elected to membership :—

Mr. Hamana Mahuika, Kahukura, via Tokomaru Bay.  
Mr. Timi Heihi, Kahukura, via Tokomaru Bay.  
Mr. Henare Matanuku, Kahukura, via Tokomaru Bay.  
Mr. Renata Tamepo, Kahukura, via Tokomaru Bay.  
Mrs. Bruce, Rolesby, Burke's Pass, South Canterbury.  
Mr. G. Davis, Pokapu, Kawakawa, Bay of Islands.  
Mr. M. R. Jones, P.O. Box, 24, Hawera.  
Mr. L. W. H. Grace, c/o Public Trustee, Wellington.  
Mr. D. S. McGregor, Pemberton, Feilding.  
Mr. C. Thompson, Stratford.  
Wanganui Public Library.

The following account was passed for payment—postage stamps and dues,  
£2 15s. 0d.





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